

17. SEP. 1954

THE

Country

GUIDE

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SEPTEMBER, 1954

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[Photo by Bob Taylor]

THE *Country* GUIDE

From Cover to Cover

SEPTEMBER, 1954

Cover:

Photographer Eva Beckett says of our cover for this issue: "For a few weeks in early autumn the tundra uplands are painted crimson with bright foliage of the bearberry (*Arctostaphylos alpina*). Taken in September at Churchill."

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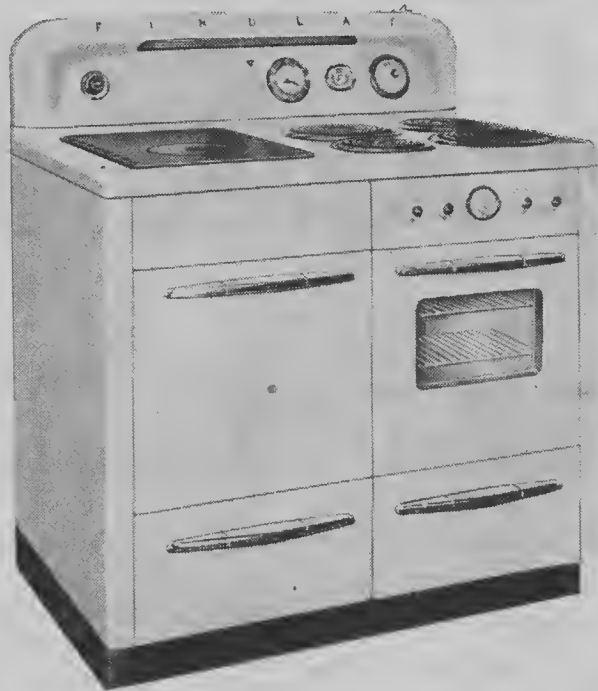
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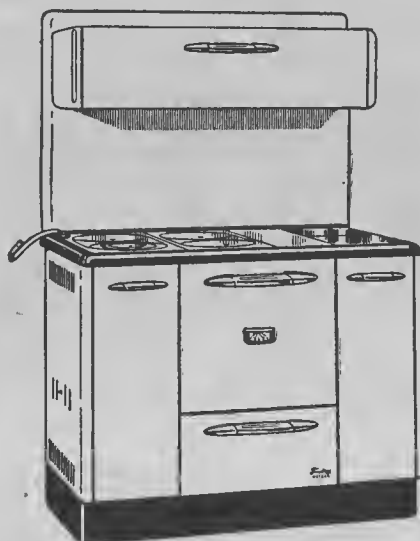
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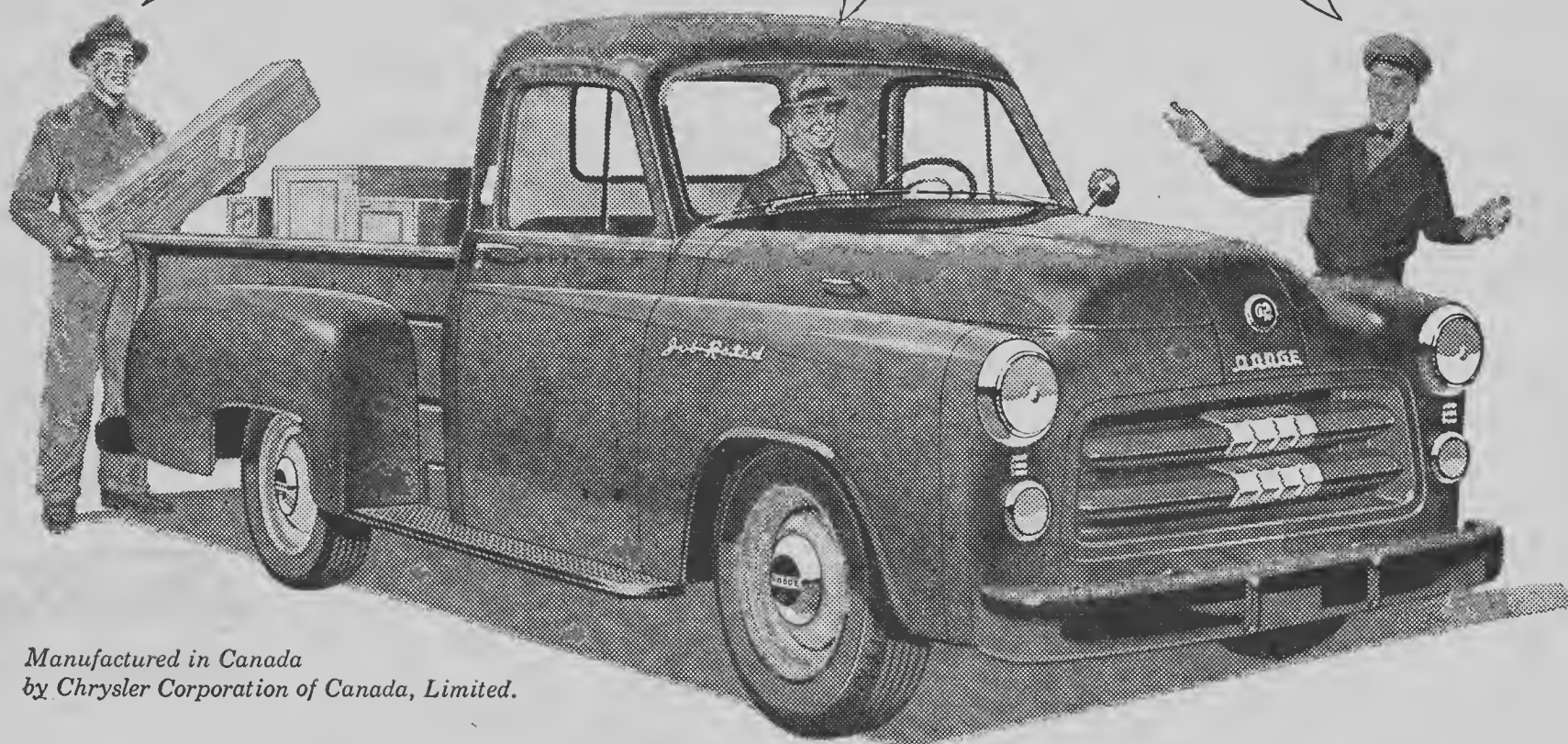
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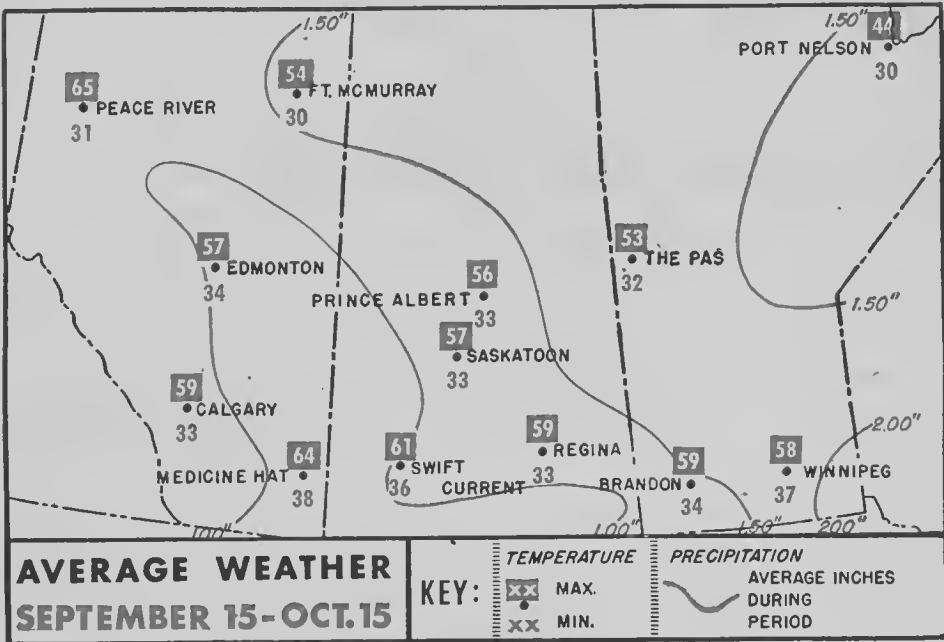
*See your DODGE-DESOTO DEALER
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Prairie Weather

Prepared by DR. IRVING P. KRICK and Staff
for

THE *Country*
GUIDE

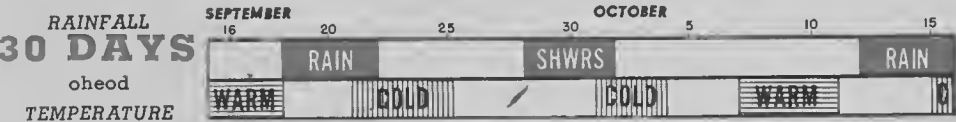
(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)



Alberta

The stormy periods shown will raise rainfall averages above normal, which should be appreciated, particularly in the southwest. Combining of small grains, grass and legume seed crops, however, will be impeded. Expect difficulty, too, with sugar beet digging. Colder than normal temperatures during the last half of September will slow maturity and increase crop damage due to frost. Expect light to

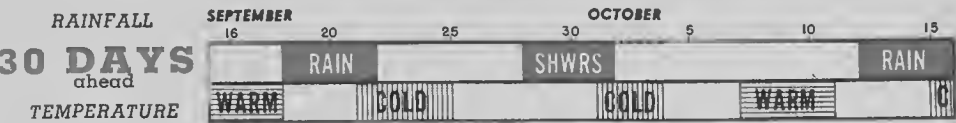
locally moderate frosts during the cold intervals shown on timing bar. Thereafter, a warming trend will begin, so that temperatures for the first half of October will average above normal. Last year, late September and early October were near normal, followed by above normal temperatures during the second week of October, so that killing frost occurred quite late. Also, below normal rainfall marked the whole period. V



Saskatchewan

Expect colder than usual weather in Saskatchewan during the second half of September. Sharp drops in temperature will accompany cold spells late in the month. Cold spells indicated on the timing bar will produce frost; probably enough to damage the crop somewhat, especially in low lying areas. Temperature will be

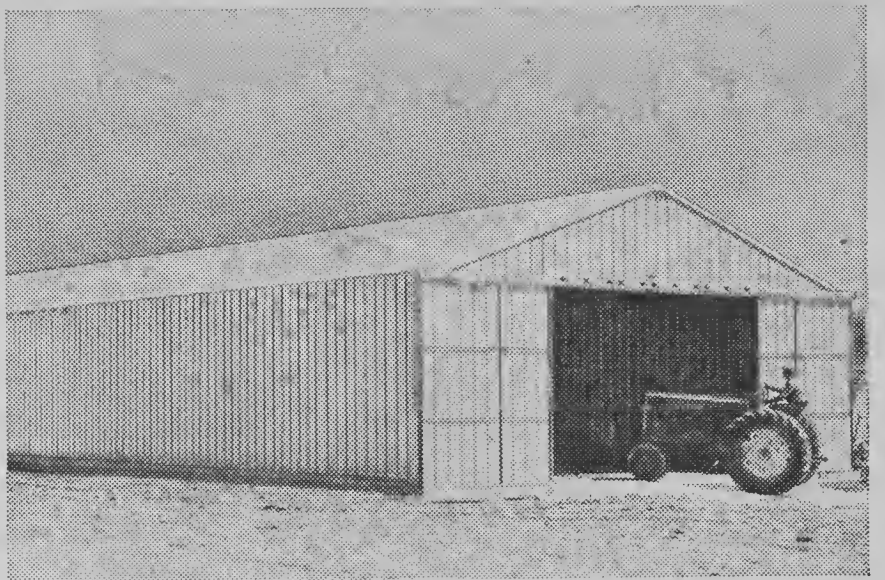
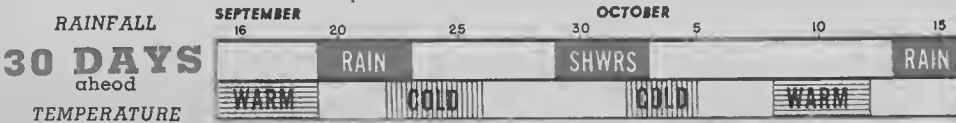
higher after the 4th or 5th of October; and the first half of the month may be expected to average about normal. During the entire September 15-October 15 period rainfall will be above normal, especially in the southern part of the province. Farmers, therefore, may expect a considerable amount of weather unfavorable for outdoor work, and should prepare for it as well as they can. V



Manitoba

Wet weather has dominated the growing season and you can look for more of the same through the 15th of October. The greatest amounts above normal will occur in the southern half of the province during the three rainy periods shown. Harvests will be very late with rust persisting up to the finish. Wet ground will hamper the harvesting of sugar beets, potatoes and other root crops.

Temperature-wise, look for the last weeks of September to average cooler than normal with strong frost threats during cold portions of timing bar. Small grains will be hurt. A warming trend will develop during October so that by the second week, temperatures will average slightly above normal. Last year frost was widespread on September 21 and 22, with 21 degrees F. at Pierson and Deloraine. By mid-October, however, much warmer than usual temperatures prevailed. V



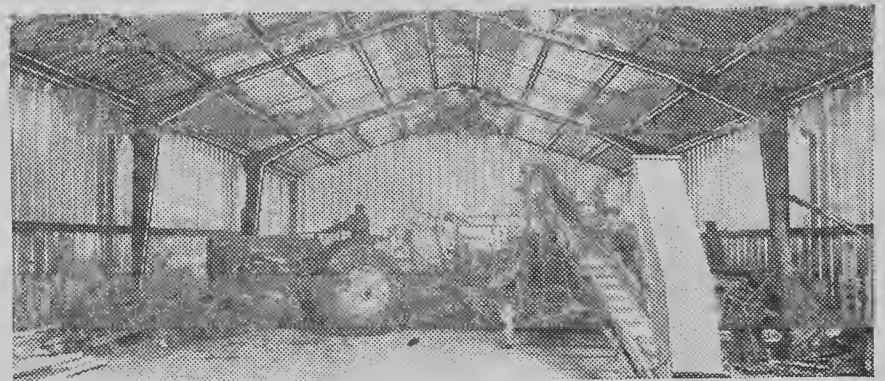
Big, wide, easy-sliding doors in Butler steel buildings facilitate easy entrance and exit of tractors, combines, harrow-plows—all kinds of heavy equipment.

BUTLER steel building does double duty at University of Manitoba

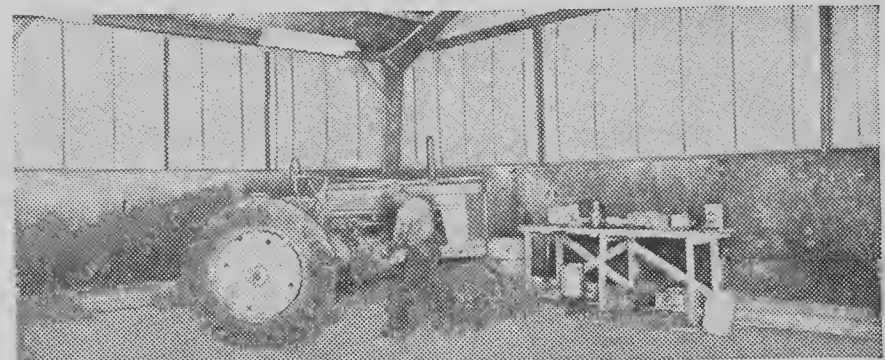
The University of Manitoba partitioned a 36' x 120' Butler steel building to provide a 1400-square-foot workshop area and a farm equipment storage area of 2920 square feet.

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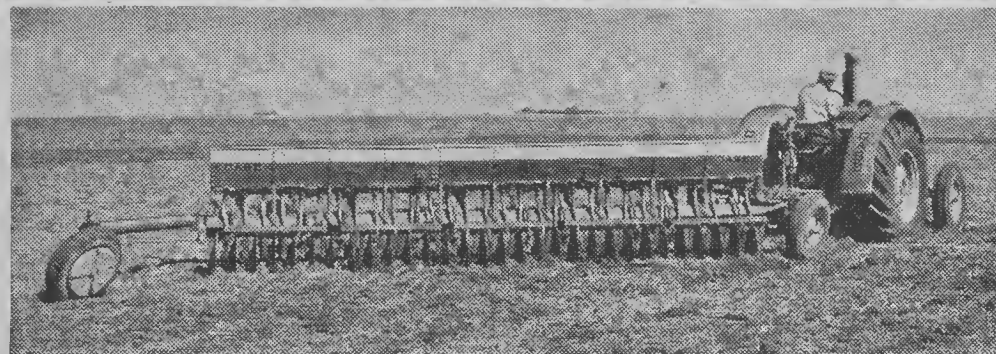


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What else? _____

Name _____

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CASE





Mange dipping station at Medicine Hat in 1905. Tom Lokier stands near center of picture (black hat) and federal inspector is seated (grey hat).
Inset: Tom Lokier at 85.

At 85, Tom Lokier has spanned an era in cattle raising and looks back on more than half a century of ranching

by C. V. FAULKNER

PIONEER railroads were pushing across the tallgrass prairie, when 12-year-old Tom Lokier arrived in Manitoba with his older brother in 1881. Canadian history was in the making; national unity hinged on fulfilment of a pledge to complete the Canadian Pacific Railway, and the steady tap-tap of spike hammers was loud on the plains as work crews rushed to make their deadline.

Tom's first glimpse of Winnipeg was through the grubby windows of a colonist car of the "St. Paul, Minneapolis & Manitoba" (later the Great Northern)—a line that had been rushed up over the border in a vain effort to forestall building of the Canadian route. The town's streets were bustling with settler activity. In the seven years since incorporation its population had risen from a few hundred to several thousand. That same year the first telephone exchange was opened with a total of 12 subscribers—a milestone in the destiny of this settlement that had mushroomed around Fort Garry.

Like many others, the Lokier brothers had been farmed-out to Canada from a quiet, ordered home in rural England. Early Winnipeg looked very raw to them, but there was an air of excitement in the endless stream of wagons crammed with settlers and their effects, which served to dull any pangs of homesickness. A new country was being pioneered, although it didn't occur to the boys at the time that they were a part of it.

Even today it's hard to get Tom Lokier to admit that he did any pioneering. But he will admit that he's been in the West a long time and seen many changes. Within the album of his memory is the first transcontinental train, and the mustering of troops for the 2nd Riel Rebellion—events which are now Canadian history.

"What I remember most is the mud," he smiles. "You couldn't get away from it. They had to put

planks in front of business houses on Princess Street, so we could load our rigs."

The year after Tom arrived in Winnipeg, horse-drawn street cars were put in service on Main Street. Rails had been laid on a carpet of wooden ties, placed side by side to keep the horses' feet out of the muck. October of that year saw three electric lights installed on the street, while in far-away New York, another Thomas was tinkering with the world's first commercial central electric power plant.

YOUNG Lokier's new farm home was about 12 miles out of town. Luckier than a lot of immigrant boys, he landed with kindly people who did all they could to help him get established. Tom liked to handle the livestock best of all. When he'd been on the farm two years he was able to get a calf of his own. It was a shaggy, rough-looking specimen of doubtful ancestry, but, to use his own words, "from then on I was in the cattle business."

Six years later, at the age of 20, he was ready to go it alone with his own herd.

Lokier has never forgotten the kindness shown him in those early years. It is a source of great satisfaction to him today, that the woman who mothered him in his first Canadian home is still enjoying life at 95 years of age, not too many blocks from his present home in Victoria, B.C.

By the turn of this century, the young rancher had been on his own for ten years and had accumulated over a hundred head of cattle, most of them Shorthorns. Winnipeg was now a city of 40,000 people, and land-hungry settlers were pouring into the surrounding areas in steadily increasing numbers. With them came that stockman's nemesis—

the plow. Every year it bit deeper and deeper into the virgin grass country.

Tom Lokier could see the writing on the wall. In 1901 he packed up his herd and headed west in search of elbow room. On the arid, shortgrass prairie of Southern Alberta he found the land he wanted: it would be a long time, he told himself, before there would be a rush of crop farmers out here.

IN partnership with a new acquaintance, J. B. I. Murphy of Medicine Hat, Tom secured a 26,000-acre tract of range, within the big bend of the South Saskatchewan River. Alberta ranchers were stocking the province with cattle in those days, so the partners jumped on the bandwagon. From Ontario, Manitoba and even Mexico they imported steers until over 1,600 of the animals lay under their brand. Taking their cue from big outfits like the Cochrane and "76" ranches, they graded up their herd with Galloways.

One year after he arrived in Alberta, Tom married Eliza Smith, of a pioneer Medicine Hat family. The Lokiers had two children, Altha and Bill. Almost as soon as they could walk, the Lokier youngsters were in the saddle. It wasn't long before Bill was an expert with rope and branding iron, able to fill in as a top hand on the ranch. His sister became a first-class rider, with a string of horses all her own.

Tom Lokier's keen eyes light up proudly when he speaks of his family. Altha now has a small farm near Medicine Hat. Two years ago she took top honors for horsemanship at the Calgary Horse Show, and has been a steady winner in the smaller fairs. Following in his father's footsteps, Bill has become a cattleman on his own hook. When he received his Army discharge at the end of World War II, he bought a (Please turn to page 50)



[Amer. Hereford Assoc. photo]

Here is the farmer's product, the raw material for the processors, whether marketed now or a year or more later, after it has made weight and age.

BREAD and meat! Since time immemorial these have been the principal parts of man's diet. Because man is omnivorous, — sharing this distinction with the pig—, he eats, or has eaten, virtually everything that grows, including the root, stem, leaves and seeds of plants, as well as almost every part of domesticated animals, from head to tail, including feet and hocks.

Man was a hunter before he became a farmer. According to the Bible story, Abel was the first keeper of sheep. This seems to give mutton and lamb a little priority, especially since Jabal, the great-great-great-grandson of Cain is recorded as the "father of such as dwell in tents and such as have cattle." Swine do not figure much in the Bible story, because, though they possess a cloven hoof, they fail to chew the cud, and were therefore regarded as "unclean."

Bread and meat symbolize the two main functions of diet, to produce energy and growth. Meat is a high protein food, especially if it is lean, and classes with cheese, fish and eggs, all of which are high in the proteins which are essential in food.

Meat is a more expensive food than bread, as any farmer or rancher knows who has used the total produce of from one to sixty acres of land plus the cost of building, equipment and labor required to bring a single 1,000-pound steer to market weight. Besides this, meat is perishable, whereas grain can be stored in its natural state for a long period without deteriorating. Consequently, meat prices normally fluctuate much more than do grain prices; and this, together with the higher unit of cost of, say, a five-pound roast, as compared with a loaf of bread, makes the average housewife much more conscious of, and concerned about,

Meat and

The processing and wholesale distribution of meat is a vast, complicated and highly competitive business

by H. S. FRY

changes in meat prices, which exert such an influence on her food budget.

The farmer, too, is very much concerned, because his is the long, arduous job of raising the animals from which the meat is produced. It is sometimes difficult to understand why a pound of top quality steak should cost so much more than he receives per pound for the animal he sells. Because of this, there is often a great deal of suspicion on the part of the farmers, which is directed toward those who handle his product from the time he sells it until the housewife makes her purchases at the retail store.

The farmer is in a disadvantageous position with respect to these matters. Half a century ago, most of the meat consumed in Canada was slaughtered in relatively small plants. Farmers knew much more about what happened to their livestock than they now know. Meat handling today is vastly different. It is true that there are still large numbers of small-town slaughterers who often retail their own meat; and also that there are a considerable number of relatively small packing houses which operate, often with difficulty, within a particular region or province. For the most part, however, the meat packing industry is dominated by a very few large companies, each of which has several large meat packing establishments located in strategic centers from coast to coast.

SUCH organizations dominate the industry solely because they are the most efficient. They are the inevitable consequence of the rapid growth of cities, which in turn has been brought about by the growth of manufacturing industry and other urban services. The growth of the meat packing industry has followed the same general trend for exactly the same reasons as all other non-agricultural industry. Aggressive development has invited competition, which, in turn, has compelled efficiency and led to increased volume. Volume, because it

meant more and larger establishments has necessitated large aggregations of capital, to justify which, hundreds of millions of dollars' worth of sales have been needed in some cases.

Something of the same thing has been going on in the retail end of meat distribution. Since World War I the chain store has developed into the dominant feature of retail distribution, and in late years supermarkets represent the most recent retail achievement in large urban centers. Still, thousands of independent retailers, large and small, continue to serve a substantial portion of the population, largely by their efficiency in rendering personal service. But these are not today the leaders in retail food distribution. This leadership has been taken by the chains, whose business may be so large and well organized as to require special departments that buy nothing but meat.

The chains themselves are in keen competition with other retailers. They tend to want the type of animal that is in good supply on the market, because the price is probably a little lower, and they can sell to the housewife at what will appear to her to be bargain prices. These buyers are not wedded to any supplier, but will shop around among all of the packing companies within reach, for a saving of a quarter-cent per pound. Such a saving in a chain of only 40 stores would earn a \$10,000 a year salary, or five per cent interest on \$200,000, from only two carcasses per store per week.

Many factors have contributed to the efficiency of the meat packing industry. The principal among them, perhaps, were the discovery of ways and means of preventing waste, and the development of refrigeration. Refrigeration, at first, meant only that meat could be immediately stored and aged after killing; but with the development of refrigerated cars, — and now trucks—, it also meant that it could be transported for long distances without spoilage.

THE prevention of waste is to a considerable extent the by-product of research and the use of improved methods of merchandising. A substantial number of products derived from livestock and the meat packing industry are now in general use in medicine. Take for instance, the pineal, parathyroid, and pituitary glands, which are now extracted, saved, and sold by the packing industry. It takes 100,000 pounds of cattle to provide just over one pound of these three glands combined. The amount of pituitary gland in a hog is only one-ninth of the amount in a steer, and 900 hogs must be killed to secure a pound of it.



[Guide photos]

Left: The only place some of the poorer, unfinished cattle can go is into cans, because their carcasses would not sell. Right: Once an animal enters a modern packing house many operations begin. These sides of beef move steadily to the coolers.

Producers

The amount of carcass meat per animal averages approximately 500 pounds for cattle, 108 pounds for calves, 150 pounds for hogs, and 47 pounds for sheep and lambs. With cattle, the remainder of live weight breaks up into approximately 70 pounds of hide, a total of about 140 pounds for the head, tongue, liver, heart, kidneys, sweetbreads, tail, tripe, fats, blood, casings and tankage, with between 200 and 300 pounds remaining as inedible fats, bones and waste. Some of these offal items produce as little as a quarter, or three-tenths, of a pound per carcass, as, for example, sweetbreads in cattle, and the tail, heart, or tongue of sheep and lambs.

IN line with what already has been written in this article are some comments made recently by S. E. Todd, whose knowledge of the Canadian meat industry from producer to consumer probably exceeds that of any other individual in Canada. In World War I he was assistant to the Food Controller, and during World War II was a member of the Canadian Meat Board. For 30 years after 1919 he was managing director of the Industrial and Development Council of Canadian Meat Packers, and is now retired. This is his comment:

"The marketing of meats is a fast-moving drama. All meats, whether in the freshest state, or highly processed, have an optimum period in which the particular qualities of each of the many varieties of products are at their best. The process of transfer (marketing) from processor to consumer has a certain urgency in its operation requiring rapid action, due to perishability of the products and the vital need of retaining freshness, flavor and quality, until they reach the consumer's table. The whole operation of processing, sale and transfer to retailer and to consumer is, therefore, a swiftly moving and dramatic series of actions in every week.

"The processor of the products of meat animals reverses the usual procedure of manufacture, which ordinarily gathers together a variety of materials and fabricates them into a specific article. The meat animal processor buys a parcel of goods packed in a skin and proceeds to produce a wide variety of products. Ordinarily a manufacturer operates on an assembly line. The meat-animal processor operates on a disassembly line. Many of the products have to be marketed in quite different outlets from those in which the main product, meat, is distributed. While many of the products other than meat are only a small percentage of the original animal, their collective values definitely influence the price of meats . . .

"While the domestic market absorbs the great bulk of meats and meat products, the total volume of any livestock production over any continued period of time depends on export out-

lets for surplus products. The availability of export outlets is, however, much more dependent on official political regulations, than on natural economic trends. As this country, potentially, always has a surplus, the first anxiety in livestock and meat marketing is the day-to-day possibilities of selling for export. This consideration applies not only to meats but to all the other products. The volume of export outlet and the price which can be obtained, conditions the whole domestic marketing policy. Domestic prices, basically, rest on what the products may be worth net for export.

"Of equal importance to market outlets is the volume of livestock being delivered to market at any given time. The variation in time during which cattle may be marketed may be as much as six months. There is not the same amount of latitude in the marketing of hogs, but it is very considerable. Veal calves and lambs have seasonal periods of high marketings, and at times they almost disappear from the livestock markets. It is the processors' and wholesale market operators' function to take the livestock as it comes, and to spread distribution as evenly as possible, and at the same time to dispose of the total supply.

"Distribution and values of products are determined by a highly developed system of continuous test of the available markets. Hundreds, perhaps thousands, of persons are offering competitively, the same or rival products to consumers, through wholesale and retail distributors. As meats, even with the aid of refrigeration and processing



Red Brand

Blue Brand

Commercial

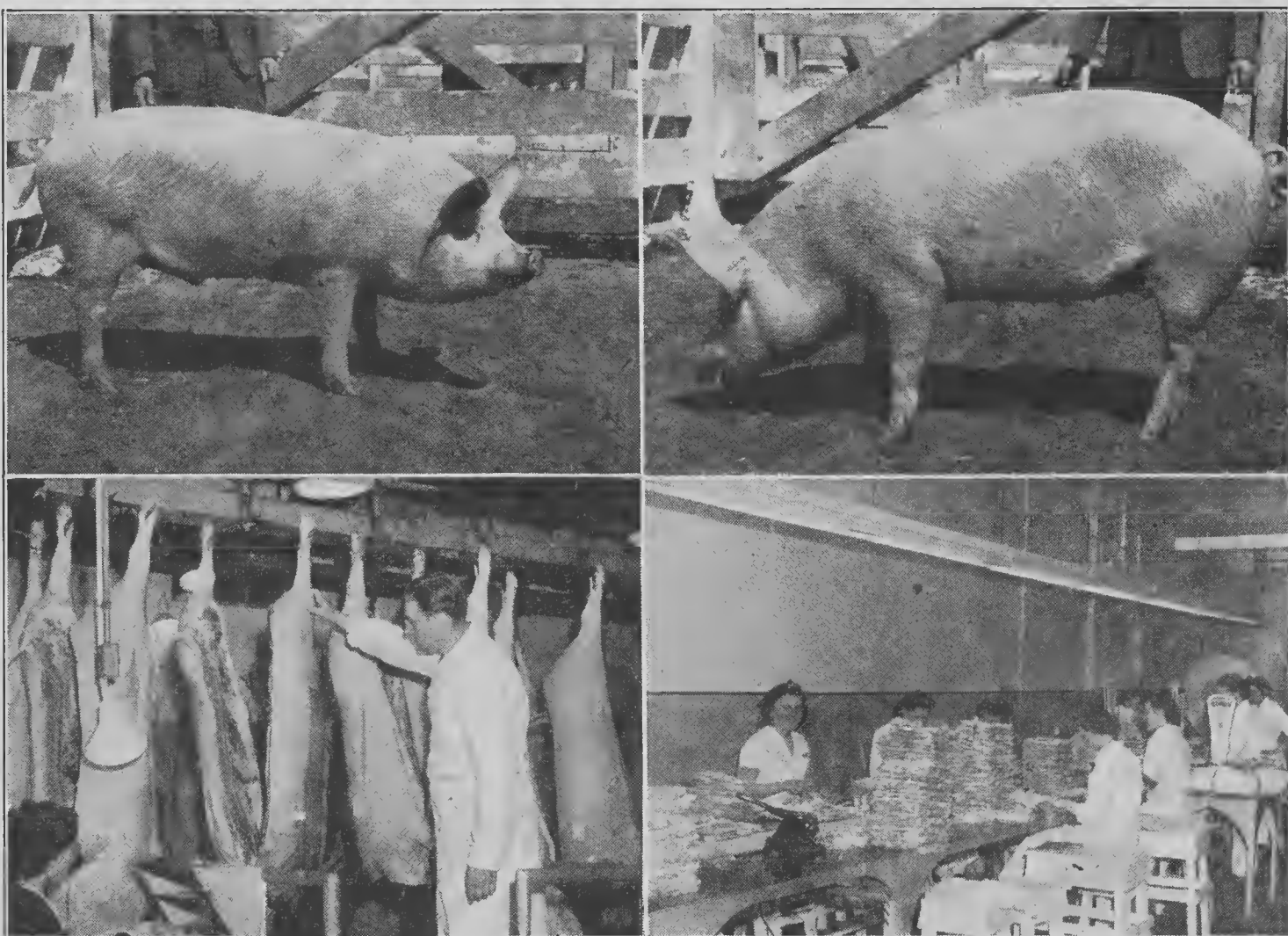
Cross-sections of beef sides of three different qualities. Leslie Hancock, district supervisor, livestock marketing, Winnipeg, is behind blue brand carcass.

methods, are amongst the most highly perishable of the foods of which protein is a main ingredient, the meat markets are highly sensitive to every day's change of supply, demand and many other factors, such as weather and seasonal and climatic variation. Wholesale prices of each product may change quickly from week to week and season to season."

THIS vast, complicated and rapidly moving business of meat processing, with its many by-paths into the manufacture of livestock feeds, fertilizers, margarine and the canning of field crops, has got beyond the ability of most farmers to feel any general familiarity with the way it operates. Fifty years of organized grain marketing has led most farmers to feel that they know pretty well how their grain is handled. Marketing of livestock is in no sense comparable. As soon as an animal is killed it becomes highly perishable. In all probability nine out of ten farmers have never been inside a large modern meat packing establishment and certainly not for long enough to achieve a satisfying idea of the many and varied operations set in train by the killing of market

animals. This undoubtedly is responsible for the remark repeated in Manitoba by a farm leader, who said that he "would give a million dollars, if I had it, to know what goes on, on the other side." Such a remark appears to this writer to be unfairly suggestive of an "iron curtain," where no such curtain exists, except a lack of knowledge imposed by circumstances.

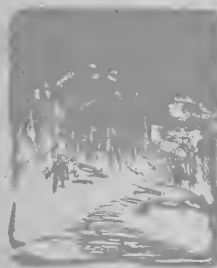
There are problems connected with livestock marketing, — serious and extremely difficult problems. The packing industry can help, by telling its story more forcefully and effectively, but most of the problem must be solved by farmers themselves. This means working together co-operatively, — and sticking together. At the present time, producer marketing boards are much in the public mind, but there is no magic in producer marketing boards as such. At best, they can be only avenues through which the joint effort and the persistent, united support of a very large majority of the producers of any kind of livestock can be channeled, in the hope of making livestock marketing relatively as efficient as the meat processing industry now is.



Top left: This Grade B hog shows its extra weight and fat. Top right: This pig graded "A," for reasons quite recognizable. Bottom left: Government grader at work as carcasses move by him. Bottom right: Bacon slicing is in progress here.



Here for seven months of the year, his foxes roamed through a natural habitat of brush, rocks and trees.



BEHIND the cherry-red stove in the far corner of the trading store, "Sour-luck" Lors Wilson was sitting against the wall, thinking. His pipe had gone out; the trapper sitting beside him had

given up trying to be sociable. To the hum of voices, the laughter and the yarn spinning, Wilson paid no attention.

He was busy going over his scheme step by cautious step, to make sure there would be no slip-up that night.

A tall, powerfully built man of thirty with black hair, black eyes and features handsome enough, Lors Wilson could easily have been attractive in appearance. But his face was covered with a week's stubble of beard, his fur clothes were soiled and greasy, his shoulders sagged; he looked gone to seed generally. A sour-luck scowl turned down the corners of his mouth, as he stared through the fog of smoke and unseeingly watched the crowd.

Two dozen men were gathered that evening in Simon MacGillivray's trading store at Lac aux Cygnes Settlement. It was Christmas Eve—a time which the Strong Woods trapper tries never to spend at his lonely cabin in the bush.

From their fur paths in the Athapascan wilderness of stream and lake and heavy forest they had come in for a day or two of human jollity—a sort of hitching-up of belts for the long solitary months until April. They had brought in peltry to trade with MacGillivray, and tall bush-yarns to trade with one another, and a huge appetite for company and cheer.

There were five Athapascan Indians, silent and dignified, their coppery faces breaking into friendly smiles when some trapper thumped them on the back. There were half a dozen saucily-dressed *metis*, descendants of those fur *voyageurs* of other days who had taken Athapascan maidens for their "wilderness wives." There was a Mounted Policeman, conspicuous in scarlet tunic and blue trousers.

There were a dozen other white men, from strapping youngsters to grizzly heads; all of them smoking, laughing at each other's horse-jokes, and argu-

THE DEADFALL

Northerners gave Lors Wilson his nickname "Sour-luck" because of his unsocial nature, his belief that he was singled out and hounded by evil fortune. Jealousy of his former partner, who had fared better than he, was behind his well-laid scheme to get even with

Alan Royan

by WILLIAM BYRON MOWERY

ing heatedly about the best way to make a fox-bed or to build a deadfall for thieving wolverines.

THE weather had been right for good catches—intense cold to prime the fur, and not much snow, so that the animals could run freely. Three of the latest comers were still trading at a counter which rarely heard the chink of money. As they spread out their packs, MacGillivray blew on the furs, tossed them under the counter, and reached down the goods the trappers wanted saying:

"Your bill comes to three marten an' a weasel, Sam. Ye want th' rest o' your tuck put to your credit? Good. Ye'll hae a handsome account come spring. Carcajou, your footin' comes to five mink, twae fox an' a muskrat. I'm puttin' th' rest to your credit, son. Boyd, ye hae been extravagant—ye owe me a pole-cat on that bill o' your'n."

Behind the stove Lors Wilson scowled in a dull, jealous anger as one by one the men thumped

down their valuable packs. Of all those twenty-odd trappers he alone had brought in next to nothing. It was another example of the sour luck that blighted everything he tried. In his belief, his short fur path and carelessness in running even that, had nothing to do with his slim tuck of peltry.

Simon MacGillivray, with his canny faculty of striking off a man's peculiarity, had given Wilson his nickname, as he had re-christened most of the trappers thereabouts. It struck off Wilson's sour, unsociable disposition, his jealousy of others who seemed to fare better than he, and his self-pitying belief that he was somehow singled out and hounded by evil fortune.

There had been other days for Lors Wilson, days of young ambition and power and pride in himself—perhaps too much pride and self-esteem, for out of the knowledge of his powers grew a feeling of superiority toward other men. Then when he did not "get on" as fast as he wanted to, he began to ascribe it to bad luck. Little by little this complex, which MacGillivray dubbed "sour-luck philosophy," grew upon him till it had a stranglehold.

The pity of it was that a man of splendid abilities should be so utterly ruined by a false idea. It paralyzed his old-time ambition, for what was the use of fighting against luck? It vitiated what once had been a good set of brains; it drove him from pillar to post, away from the one profession he was fitted for, and away from the woman who might have saved him from himself; it soured him against everybody and everything. Step by step it undermined his moral code, until his whole degradation came to a head that Christmas Eve.

The door slammed suddenly open and the man he was plotting against stepped into the trading store. He was of Wilson's height and build, but a year or two younger, freshly shaved, with brown hair cropped close. A *ceinture flechee* like those the *metis* wore, was thrown over his shoulder and wound like a sash belt around his waist. There was a purposeful thrust to his lean jaws and about him a crispness

(Please turn to page 52)

Illustrated by Clarence Tillenius

Poultry Meat Revolution

Efficiencies gained through mass production provide tough competition for farm-produced poultry meat

by DON BARON

BIG changes are taking place in the poultry meat industry. Meatier birds have been bred to please the housewife, and high energy rations developed to speed the growth of the birds. Killing plants are using chain conveyors to step up volume and cut costs. The birds are eviscerated, packed in chipped ice, and rushed to the sales counter, fresh and appetizing, and ready to cook. Moreover, buyers are carrying this freshly killed chicken home from the stores 52 weeks of the year. In fact, chicken meat has been taken out of the special "Sunday dinner" classification and placed squarely on the daily table of many Canadian families.

While the average Canadian ate 17.7 pounds of fowl and chicken meat in 1949, we had increased this to 24.8 pounds by 1952. In spite of the big increase in beef consumption that went with lower prices in 1953, we still managed to get away with over 22.2 pounds of poultry meat per person. In fact, says S. C. Barry, chief, Production Services, Canada Department of Agriculture, "poultry has gained some of the status which hogs previously held. It has developed a degree of specialization in production beyond that achieved by the hog industry."

Disturbing part of this whole rosy picture, from the poultryman's point of view, could very easily be the mass-production system of raising birds, which Mr. Barry says, has been largely responsible for all this progress. Much of the poultry meat being eaten today comes from huge, multi-storeyed houses elaborately equipped with automatic feeders, waterers and other labor saving devices, so that one man can easily look after thousands of birds.

Already the Canadian Federation of Agriculture has expressed fear that the broiler growers who make the greatest use of these newly developed techniques, threaten to wreck poultry production as a farm enterprise. "Large packing and feed companies," it says, "are going into poultry production on a factory scale. They search for men who will work for wages for a few months and who have an idle building which might be converted for the purpose, and to whom they provide the chicks, the feed and the medication."

POULTRY industry officials are wondering, if the 16-to-20-weeks-old "spring" chicken, the by-product of the farm replacement flock, is not largely a thing of the past, and some say that time has already arrived. They point out that buyers are changing their preference from heavy roasting chicken to frying chicken—and for a very good reason. Frying chicken is much cheaper and is available all year round. Under-four-pound chicken, which in the not too remote past was regarded as difficult to sell, last year exceeded the sale of roasting chicken for the first time.

By November of 1953, more than half the chicken meat coming from registered killing plants came from broilers. Apparently Canadians like

both the taste and the price of these small and tender birds. On January 15, Grade A fryers retailed in Winnipeg at 49 to 53 cents a pound, while roasting chickens were more than half as high again, selling between 80 and 90 cents. To many, it appears that large quantities of chicken are now available all year round, at prices with which the average farmer cannot hope to compete.

This summer, officials of the Manitoba Dairy and Poultry Co-operative, through their official organ, The Manitoba Co-operator, advised farmers to eat their surplus fowl themselves. Heavy production of frying chicken, they said, knocked fowl prices so low that growers could not hope to salvage even a reasonable price for non-laying hens.

These broiler birds, which have so caught the fancy of housewives on this continent, were produced in a small way over 20 years ago in the United States. Commercial production began to grow, and during the past decade has taken a spectacular jump, with distinct areas of production forming around the big centers of population.



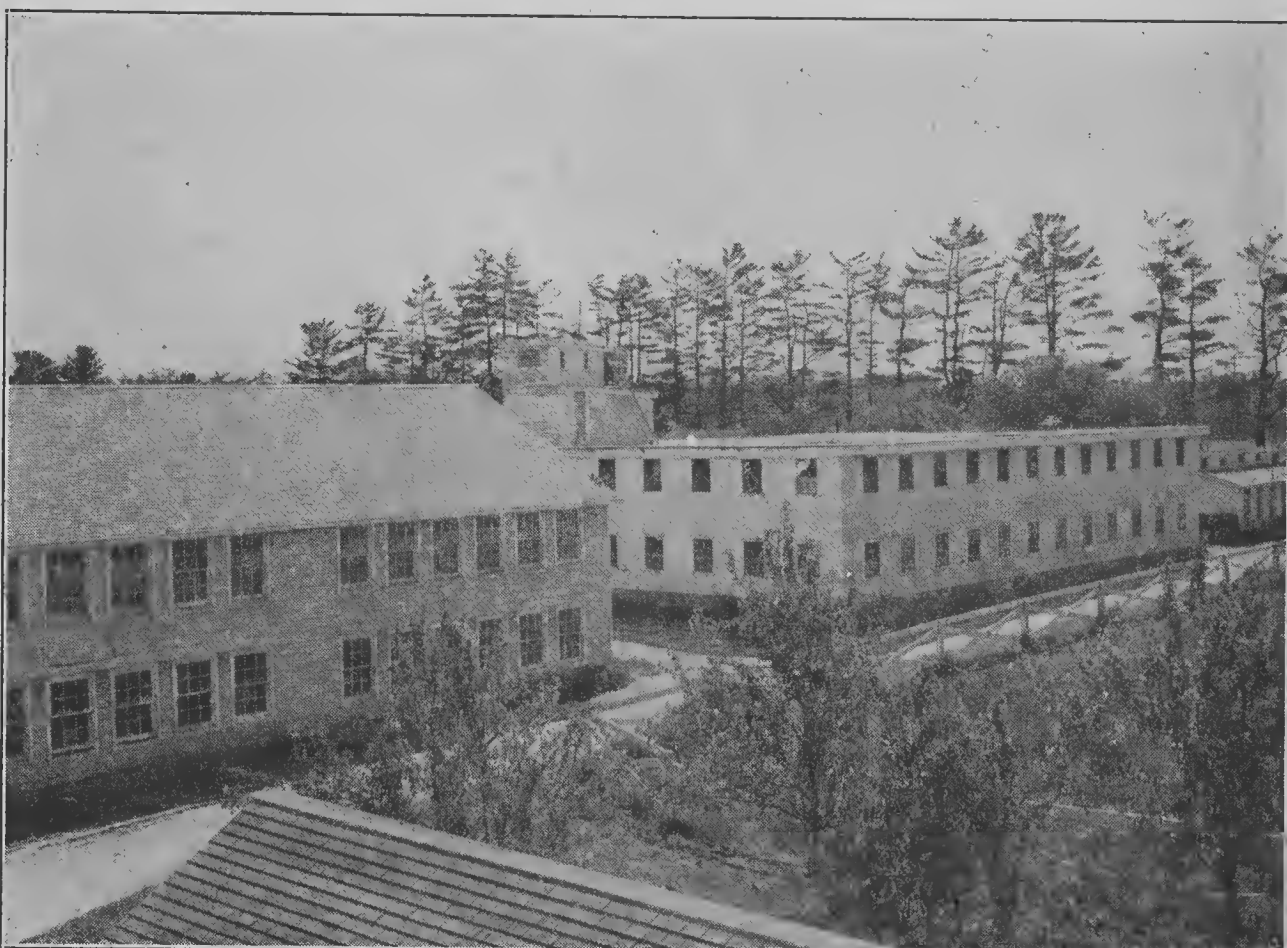
This converted dairy barn handles 18,000 birds as one lot.



A mechanical feeder reduces chore-time in the huge pen.

Largest and earliest area was the Delmarva peninsula, of Delaware, Maryland and Virginia. In 1930, production there was less than five million birds a year, but by 1949 had surged to over 130,000,000.

Ten years ago, hardly a housewife in Canada had tasted chicken broilers, but two hopeful young feed salesmen had already persuaded Toronto housewives to buy the first few hundred birds they had grown themselves. Apparently they came back for more, and soon were willing to buy more than were being produced. A rush of poultrymen and businessmen into broiler production put thousands of birds to market in eastern Canada. For a few months profits were high. More farmers tore out cow stabling, or pig pens from their barns, replacing them with brooders and automatic feeders, hoping for the big profits (*Please turn to page 48*)



Meat-type broilers from New Hampshire are used in this big Ontario broiler set-up.

[Photos courtesy James Fisher Co.]

SPRING had come back to the Athabasca. With it came the familiar forest fires, raging in the timberberths north and west of my trapper's cabin. When I went outside that blue April morning, I could taste the thickening smoke that, for days, had left a purple shawl over the two thousand acres of spruce slopes and river bottoms that was the Big Horseshoe Bend. The chinook still blew steadily over the western hills. It would carry the fire eastward; I thought—maybe even give Shorty Hill a scare.

Below the shack I had cut into the snug north slope of the only entrance to the valley, was the richest fur pocket in the north. From those winter wastes, I'd taken scarlet-throated marten and red squirrel . . . a thousand black-tipped weasels from the matted slough bottoms . . . long black mink from the fretting, frozen river. In another week, the squirrels would be blue around the throat and shoulders; and now the lushest crop of all was ready for pelting—muskrats from the breaking river.

Descending the narrow neck of the Horseshoe, I took a long look over my strange valley. Long-frozen spruce waved their palms in the wind. Resin gleamed again, like honey, on the pines. The trailing smoke seemed to go with the spring, softening the harsh hills and sliding sand-cliffs, gutted out by the fingers of the last Ice Age. To the west and east, the river had cut a clean channel between dizzying twin cutbanks, while the south "bank" of the river itself was nothing but a high, concave cliff, eroding a little more each year. I had noticed, during the winter, that even the timber wolf packs had to pass my cabin to get to the valley. It was a natural sanctuary, I had thought then. It never occurred to me that it could also be a deadly trap. And that day, such an idea was the farthest thing from my mind.

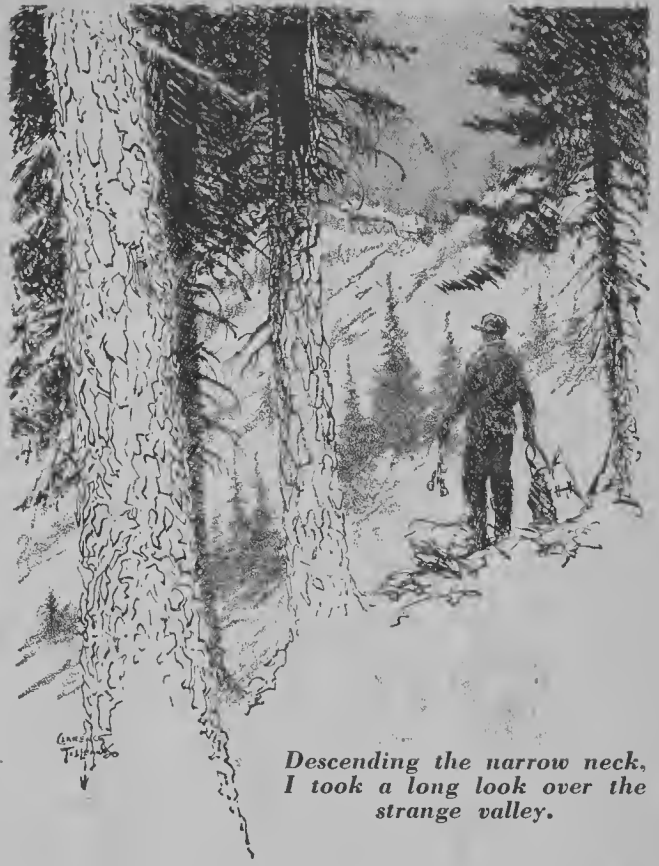
It was cooler on the bottoms, and the far-off song of the fire was drowned in the crash and spate of the great Athabasca. During the night, the breaking river had heaved its bottom ice. Bergs, weed-bottomed and some as heavy as railway locomotives, were borne downriver, to pound against the curves, shiver, poise and be borne downstream again. The shattering of ice cakes in the east gorge filled the chasm with spume.

Tracks on every silted inlet told of muskrats and beavers hastily abandoning their bank burrows before drowning overtook them. The beavers were moving to dens prepared on high alder islands in

the fall. The muskrats, mad for the taste of daylight again, were migrating to the backwashes, their bright eyes and shiny-black backs scarcely discernible against the foam and froth of that swirling world of waters. They plopped and tail-splashed in every slough, and the water's edge was piled with floating green—chewed bottom mosses brought up by the sun-starved rats.

It was illegal to shoot them with the .22 — and pointless, as well, for the backwashes were too deep and too cold to retrieve them—but my traps were full. In some, buck rats had come along in the night and slashed hapless rivals to ribbons. Instead of diving and drowning, a few had chewed front legs off—to escape and become trap-wise patriarchs of the ponds. Some had only just been caught: they sat on the traps, long brown teeth snapping viciously. The breeding season was near; and the musk smell, sweet and cloying, hit me every time I leaned down to take out a rat or reset a trap.

In the minute it took to skin each victim, the soft pelt was shiny-dry: the hair oil sheds water almost instantly, making "Hudson Seal" a standby of value in fur. Each glistening brown pelt was rolled, fur side out, and tossed inside my pack, to be stretched when darkness made further trap-visiting impossible.



Descending the narrow neck, I took a long look over the strange valley.

SAGA OF A STRANGE VALLEY

Even the timber wolf packs had to pass my cabin to gain entrance to the valley. It was a natural sanctuary along the river bottom, channelled between dizzying cutbanks. It was the richest fur pocket in the north. It had never occurred to me that it also could be a deadly trap

by JOHN PATRICK GILLESE

BETWEEN the chains of backwashes were clumps of virgin spruce, as big around the butt as old oak barrels. Their great piles of chipped cones told of red squirrels feeding. Only a few rough drifts of snow were left, soggy and black, mostly on slough edges and along the north sides of ancient beaver embankments.

Red squirrels were averaging a dollar apiece that winter, and there were plenty in that valley. Some frolicked on the sunny edge of the timber. Bucks in the high branches called their ventriloquist's "Churr-r-r!" to faraway friends. Some—gun-wise; or mated females—darted furtively around the pink-colored trunks, then up to the tall, bunched tops, to leap from top to top in sure safety, or to flatten

themselves against the limbs. I knew of trappers who took these, too, waiting quietly below till the scrape of claws in bark betrayed the timid descent. I wasn't greedy. And I had a sentimental vision of their progeny possessing that fur-rich valley forever.

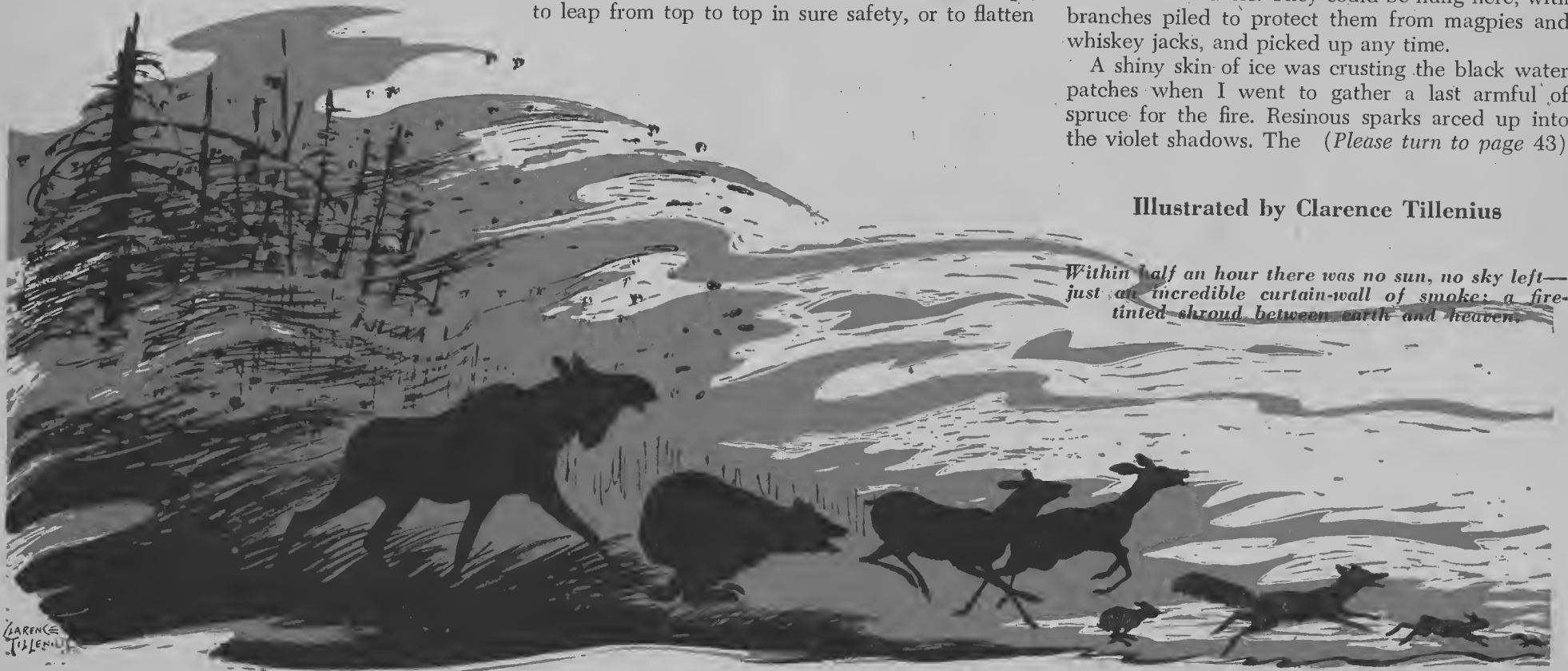
The squirrels took longer to skin than the larger muskrats, because of work on the tails. Artists like squirrel-tail for paint brushes. By the time I had worked through the last clump of spruce to the last backwash, the spring dusk was falling—chilling and lonely. My pack was bulging. My back was cold with sweat and my legs ached. So did my eyes and neck, from straining into the green-and-gold gloom of the spruce.

I made my fire on a small spruce knoll, tight against the north hills. A cock grouse, bulleting on bronze wings into a clump of willows, made a nice supper. I made my bed of spruce branches piled between two logs; then, for two hours longer, I worked, by firelight. The last dozen animals I had trapped and shot, still had to be skinned. The slack rubbery furs I had already pelted had to be pulled onto wire stretchers. They could be hung here, with branches piled to protect them from magpies and whiskey jacks, and picked up any time.

A shiny skin of ice was crusting the black water patches when I went to gather a last armful of spruce for the fire. Resinous sparks arced up into the violet shadows. The (Please turn to page 43)

Illustrated by Clarence Tillenius

Within half an hour there was no sun, no sky left—just an incredible curtain-wall of smoke; a fire-tinted shroud between earth and heaven.



Nuts for You

Commercial nut growing is now becoming well established in British Columbia, and markets range east to Winnipeg

by DON MEADE



Nut trees bear at from six to twelve years, and harvesting is fairly simple.

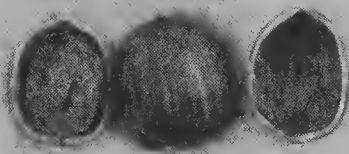
BEROKA



MARS



**PURVEY
FILBERT**



**CRAIG
FILBERT**

Four varieties of filberts.

FOR years Canadian nut growers in British Columbia have been quietly experimenting with foreign-grown nuts, trying to produce sweeter and more volatile filberts for profitable cultivation in our rugged climate. Now, at last, success is theirs.

During future festive seasons when nuts are served, fewer Canadians will associate sweetmeats with foreign lands, because more B.C. nut trees have reached maturity, and greater quantities of the home-grown product will soon appear on grocery shelves.

While British Columbia farmers waited patiently for orchards to fully mature, they harvested early crops that contained a dozen varieties of filberts, filazels, heartnuts and walnuts, not to mention sweet chestnuts and others. Although nut trees take up only a fraction of B.C. orchards, figures show that close to \$100,000 worth of sweetmeats are being sold to Western markets yearly.

Most spectacular has been the birth of a new nut known as the filazel. It combines the sweetness of a filbert with the hardness of the wild hazel, a tough little nut that thrives in the 60-below temperatures of the Peace River country. J. U. Gellatly, Westbank, Okanagan Valley, is the originator of the filazel. One of the best authorities on nut growing in North America, Mr. Gellatly coined the name by combining the first three letters of filbert with the last four letters of hazel.

Besides Mr. Gellatly, who, by the mass of experimental data he has gathered, might readily be called Okanagan's Luther Burbank, there are large B.C. nut growers in the Fraser Valley. Cliff Skelton, Chilliwack, cultivates 100 acres of fully matured nut trees. Fred Seifred and Sons, Alder-

grove, has a younger orchard of 65 acres, while Nut Growers Association chairman Frank Aish, Abbotsford, grows 55 acres. Added to these names are dozens of small growers who farm from one to ten acres of nut trees along with their fruit orchards. All told, B.C. farmers cultivate about 500 acres, with a potential annual production of 300 tons of filberts and other nuts. Each year, as more trees reach peak production, growers ship farther east to open bigger markets.

Although Canadian growers are just coming into their own, nut trees have thrived in B.C. for almost 100 years. When last seen in 1940, four 80-year filbert trees at Victoria still bore nuts. At Duncan, a filbert tree continued strong after 72 years. On the Pacific Coast, Japanese walnut trees have produced for more than 40 years.

WAITING for trees to reach peak production is the biggest handicap, say the growers. When trees grow 12 years, provided the soil is right and the price good, they pay off handsomely. According to Mr. Aish, a profitable way to combat the waiting period is to interplant nut trees with small fruits or such crops as rhubarb.

When six to 12 years old, nut trees produce from one-half to two tons of filberts per acre. Even at two or three years, some orchards bear a surprisingly good crop. It all depends on the location. Fraser Valley soil is so varied that a filbert of one kind will bear well where another variety stands still. Growers agree, however, that the best filberts come from the Okanagan and Fraser Valleys. There, the DuChilly,

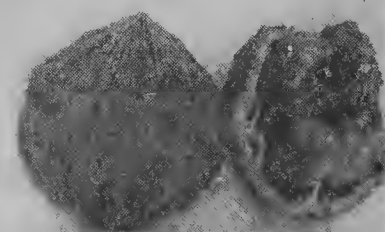
Nooksack, Barcelona and other varieties have yielded record crops.

Mr. Gellatly has experimented with many nuts in the Okanagan, but results could not always be compared with crops grown on other soils. Because most Okanagan land is irrigated and planted to fruit trees, fewer farmers have been able to grow nut trees. Nevertheless, nuts grown in the Okanagan, the Fraser Valley and the Gulf Islands have surpassed imported kinds in oil content and quality.

Superiority was attained only after patient experimentation with seedlings from all over the world. Mr. Gellatly's advice has been sought by growers in India, China, Turkey, Denmark, the United States and other countries. From these same countries came the nuts that enabled him to conduct experiments.

One European traveller sent ten small bags of varied nuts for Okanagan planting. Another in the South Seas provided a wild, cocoanut variety, smaller than a filbert. Each new seed was carefully fostered in an effort to prove that warmer-climate nuts could be improved to withstand Canadian winters. The same thing was done in Tibet. There, walnuts, chestnuts and filberts thrive at 9,000 feet elevation.

Forest trees could be grafted with 25 nut varieties and made to produce profitably, claims Mr. Gellatly. Nut trees are so rugged that they can be grown anywhere, for shade and wind-protection. If planted into hedges, the resultant crop may be foraged by hogs for spring or fall fattening. So hardy are the trees that one Lulu Island farmer started a five-acre orchard by



**IMPIT
BLACK WALNUT**



**RIOKA
Walnut**



**BROADVIEW
Walnut**

Three kinds of walnuts.

planting two-foot suckers, cut from parent trees.

When planting a nut orchard, Fred Seifred advises beginners to start with not less than ten acres. Then, when the waiting period is over, you are set for life. Plant trees in squares, advises Mr. Gellatly. That way, wind will blow pollen into neighboring trees. If planted in long, single rows, much pollen gets lost. For best results, new planters are advised to seed several varieties of the most hardy, early-bearing and quick-maturing nuts in the same orchard. Soon, from experience, the best kinds for that particular soil will win out. Most important requisite is good drainage in soil that contains ample plant food.

Along the Pacific Coast, walnut trees do exceptionally well on tide-water land that contains plenty of lime and broken shells. But for shade, or as a hobby, nut trees will grow in any kind of soil. Moreover, they grow faster than fruit trees. One Okanagan nursery experiment showed four to eight feet new growth on a single stem in one season.

IN the spring, a filbert orchard is beautiful to behold. Then, trees take on rich, golden catkins that hang down, loaded with pollen. Taking advantage of this picture, Mr. Gellatly had lantern slides made to teach would-be growers how to profitably raise sweetmeats for themselves.

According to some growers, care of a nut crop takes less time and work than fruit. For instance, apples must be sprayed, trees pruned, fruit picked, graded, polished, wrapped and boxed, and danger of frost and bruising losses are always present. B.C. frost does not affect nuts, and if the harvest is delayed, no damage results. On some nut farms, where harvesting

(Please turn to page 70)

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Under the Peace Tower

by HUGH BOYD

INTO the relative calm and unruffled off-season life of the cabinet and officialdom on Parliament Hill, there came, during August, two events of sufficient import to recall Prime Minister St. Laurent from his summer home at St. Patrick, far down the St. Lawrence valley. One was a pleasant occasion, the other not so much so. But both have given rise to controversy, and that is their common denominator.

It was on August 10 that the Prime Minister found himself on a platform on the banks of the river which bears the name of his patron saint, a couple of miles upstream from Cornwall. Beside him were Governor Dewey of New York, and Premier Leslie Frost of Ontario, and many other notables. It was a day for rejoicing, for under the blue August sky (a lucky break for the planners, because thunderstorms racked the region a few hours later) there was being celebrated the start of work on the 2,200,000-horsepower development in the international rapids section of the St. Lawrence.

That in itself was impressive enough, for the project, as Mr. Dewey pointed out, is bigger than anything else in his own country apart from the Grand Coulee dam, and is, moreover, a remarkable example of international co-operation.

The further significance of those friendly doings near Cornwall (and Massena, across the river) is that they also, unofficially, marked the emergence of the final stage of the Great Lakes-St. Lawrence Deep Waterway. That is, they brought realization to a dream of at least half a century. As everyone knew, the Seaway would not be practicable without raising of the river level in the international rapids for power purposes.

BUT a few days after these happy exchanges of compliments on an international accomplishment, there came a sour note. Representatives of the two governments had met in Ottawa to talk about the Seaway itself. Out of their friendly meeting came an exchange of notes. Canada agreed that the United States was entitled to build navigation works on its own side of the river in the international rapids sections—as Congress had instructed its agency to do. At the same time, Canada announced its intention of building a dam at Iroquois, irrespective of what the Americans might do on their own side of the river. And it also expressed the polite hope that the United States might forebear from doing any building across from Iroquois. It said nothing about the much larger canal project at Barnhart Island.

Since then a large number of Canada firsters have been active. Canada, they cry, has sold its birthright for a mess of the concoction named in the Old Testament. They are entirely wrong. Canada has sold nothing that it already owned. The United States has the right to build canals on the south side of the river between Cornwall and Prescott, and Canada has an equal right to build



on the north side—now that there is international agreement to raise the water levels for the sake of generating power.

The probability is that both Canada and the United States will have canals in the international rapids section of what is otherwise a mainly Canadian watercourse (as far as Lake Erie). This is not for reasons of national pride but because, unless all the prophets are wrong, there will be enough traffic to warrant a double system of canals, just as there is at the Soo.

Nor is it likely that Canada will suffer in the matter of tolls on the works to be done between Montreal and Lake Erie. There can be joint tolls or independent tolls, and the probability is that each country will have its own.

THE other occasion for Mr. St. Laurent's interruption of his holidays was the threat of a railway strike—the fourth crisis in the last six years, including the strike that actually happened. The Prime Minister made it clear enough to both the unions and management that there would be no tie-up of rail transportation—which surprised nobody—and so the issue has gone to arbitration.

The immediate sequel came after Mr. St. Laurent had returned to his interrupted holiday at St. Patrick. Mr. N. R. (Buck) Crump, vice-president of the Canadian Pacific Railway, took occasion to address the Canadian Weekly Newspaper Association at Toronto on the subject of the railways' troubles in general and those of his own in particular. Mr. Crump persuasively raised the question of the Crow's Nest Pass rates on grain, suggesting that they ought to be abolished in the interests of railway management and labor alike. Significantly, however, he didn't demand that producers should pay more for the carriage of their grain—only that a method should be evolved "whereby the railways would receive just and reasonable rates for the transportation of Western grain without increasing the transportation cost to the grower."

The implied proposition that a new basis of transport subsidy should be devised is a potential issue in the next session of Parliament.



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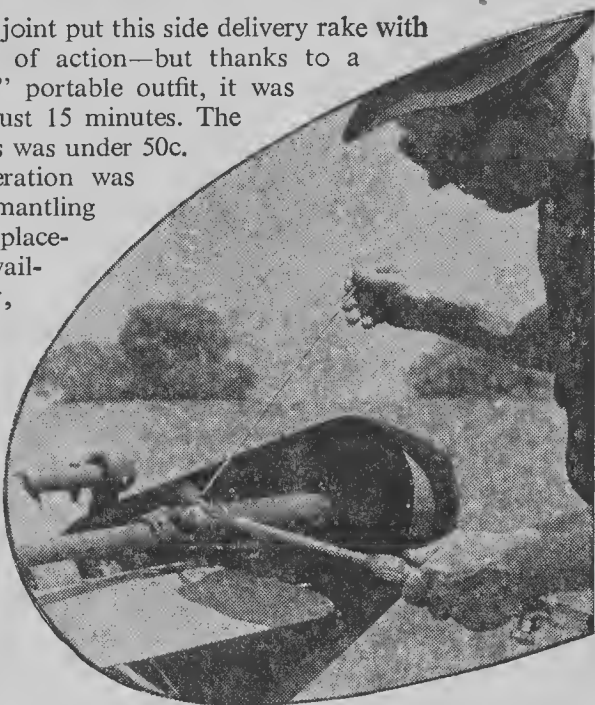


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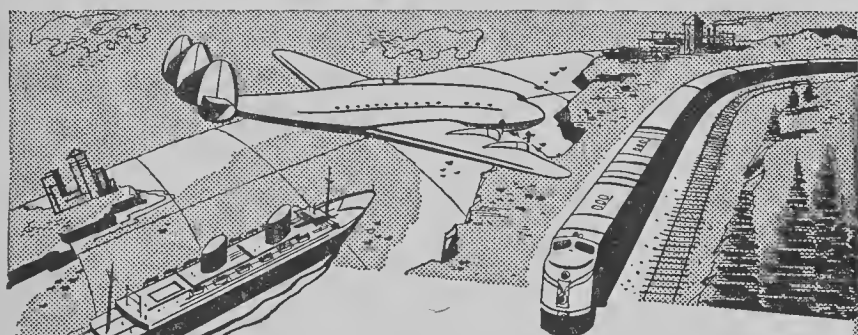
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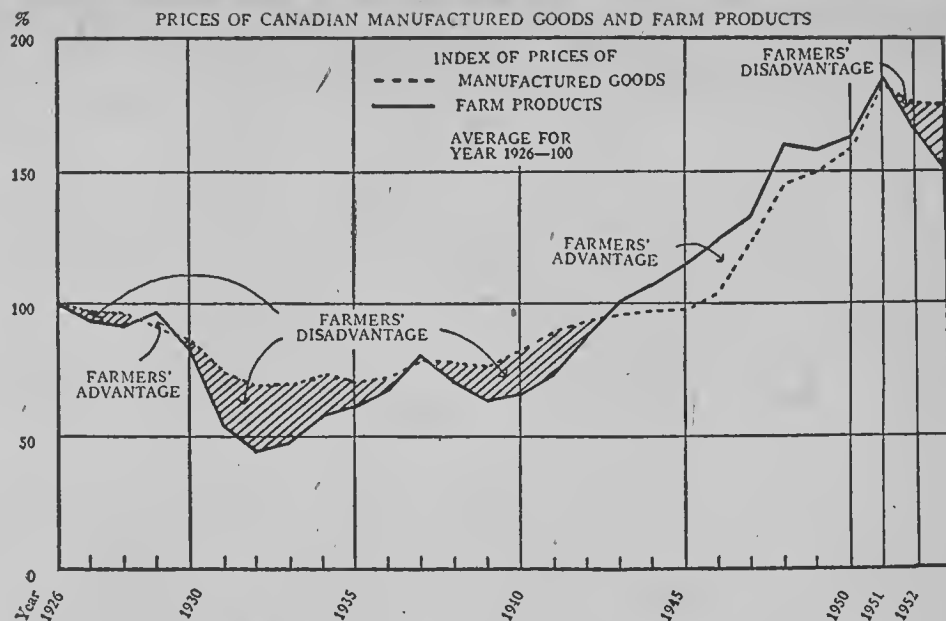


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NEWS OF AGRICULTURE



The Ontario government in its statistical review of 1953 illustrates the course of farm price decline by this graphic comparison.

Supply, Demand and Price Supports

A VERY large proportion of the world's coffee is produced in Brazil and in several countries in Central or Latin America, including Colombia, El Salvador, Venezuela, Costa Rica, the Dominican Republic, and Mexico.

About a year ago the price of Brazilian coffee began to rise. This crop makes up 70 per cent of Brazil's export trade. Severe frosts at that time had damaged the trees and reduced the crop somewhat. Retail prices in western Canada, for example, rose to around \$1.35 per pound for good brands. At the end of the 1953-54 coffee season Brazil had a carryover of nearly 3.1 million bags. Despite the fact that the Colombian crop is estimated at a new high record and that the El Salvador, Venezuelan, and Mexican crops are up 30 to 40 per cent, the Brazilian government established a minimum export price of 87 cents per pound and has already made coffee purchases to support this price. Somewhat similar action has been taken in Colombia.

By following U.S. farm price support practice and maintaining too high a price for coffee, Brazil slowed up demand by the North American housewife. As a result, the price of green coffee beans which was about 66 cents early in January and rose to 95 cents on April 1, dropped to about 71 cents per pound by the middle of August. Meanwhile coffee consumption was estimated to have fallen off by 25 per cent. This meant, for example, U.S. coffee imports from Brazil, in June, of 396,000 bags, as compared with 1,149,000 in June, 1953. High, fixed price supports can be costly.

Little Red Hen

ON August 21, Little Compton, in Rhode Island on the east coast of the United States, celebrated the hundredth anniversary of the little red hen, the Rhode Island Red. This is the breed that is credited with having launched the poultry industry of the United States, now responsible

for a turnover of about \$4 billion each year.

The story is that on the farm of William Tripp, a Malay or Chittagong cock ran with the scrub hens of Little Compton a century ago. Tripp and a friend, John MacComber, did the early cross-breeding. Some birds were bought by Isaac Champlin Wilbour who christened the famous breed and first advertised it in 1896. During his day, Little Compton is reported to have become the biggest poultry town in the U.S.

This year the little red hen became the official state bird of Rhode Island, after an election and an act of the legislature. It is reported that no true Rhode Island Red lives in Little Compton now.

Foods Are Big Business

IN 1952, in Canada, the gross value of the products of all processing and manufacturing industries was \$16.9 billion. In the same year the gross value of the output of the foods and beverages industries was \$3.4 billion, or 20.4 per cent of the total. This amount involved 8,263 establishments, employing 175,552 employees, and the purchase of \$2.3 billion worth of materials.

The ten most important food industries are as follows, the gross value for 1952 being shown in brackets, in millions of dollars: Slaughtering and meat packing (863.7); dairy products (488.5); flour milling (274.2); miscellaneous food preparations (266); bread and bakery products (260.1); fruit and vegetable preparations (211.7); prepared stock and poultry feeds (181); brewing (178.7); fish processing (134.7); sugar refining (129).

Total exports of the food industry products in 1952 amounted to just over \$400 million, of which almost exactly one-third consisted of grain milled products. Fish products were well over \$100 million and meat products about \$60 million.

Of more than 8,200 food processing and manufacturing establishments, 3,000 were located in Ontario, 2,600 in Quebec, 660 in British Columbia, 413 in Alberta, 393 in Nova Scotia, 367 in Manitoba, 351 in New Brunswick, 225 in Saskatchewan, 118 in Prince Edward Island, and 77 in Newfoundland.

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NEWS OF AGRICULTURE

What Are Zoonoses?

THERE appear to be more than 75
diseases that can be transmitted
to man by domestic or wild animals.
Twenty-seven, or more than a third
of them, are transmitted by domestic
livestock—cattle, pigs, and so on; 26
by dogs; 14 by cats; and the remain-
der by wild life.

Such diseases are called zoonoses
(zo-on-o-sis). Those transmissible to
man by domestic or wild animals in-
clude rabies, tick fever, bovine tuber-
culosis, ring worm, and brucellosis.
Rabies is probably the world's best
known example of this type of disease.
Dogs are said to be responsible for
about 86 per cent of the cases where
the disease is spread throughout the
world; cats for about five per cent;
wild animals for about 3.5 per cent;
and cud-chewing animals for two per
cent.

Bovine tuberculosis causes about ten
per cent of human tuberculosis in
some countries, with most of this
spread through raw milk or through
the air.

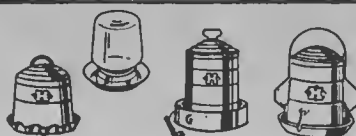
Brucellosis, contagious abortion, or
Bang's disease, as it is variously called,
occurs in cows, pigs, goats and sheep
and is generally transmitted to man
by direct contact, drinking raw milk,
eating fresh cheese, or handling meat
from infected animals. This disease in
man is called "undulant fever" and is
not usually fatal, but has a serious
debilitating effect and may leave
patients with arthritis or with spinal
columns affected. Among animals it
causes abortion, sterility, and there-
fore, uneconomical production. In
France it is estimated to cost \$100
million a year, and in the United
States \$50 million.

Both the World Health Organiza-
tion and the Food and Agriculture
Organization have been working for
several years to reduce the incidence
of all of these diseases and have been
helping the governments of India,
Yugoslavia, El Salvador, and other
countries, to reduce costly losses from
these sources. ✓

Study Vegetable Marketing Board Idea

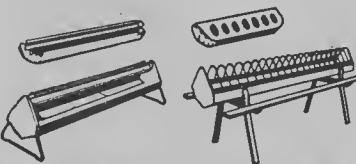
THE production of commercial
vegetable and truck crops in
Manitoba amounts to about \$7 mil-
lion annually. The Manitoba Vege-
table Growers' Association have had
two active co-operative associations
in operation for some time, but 1,000
growers have recently been queried
as to their views on the formation of
a vegetable marketing board under
the provincial legislation passed in
1939.

The directors last winter were in-
structed to study the problem of vege-
table marketing. After having sur-
veyed the situation they decided to
query the growers as to their attitude
toward a producer marketing board,
pointing out that in return for loss of
freedom of enterprise, certain benefits
should accrue to the growers jointly,
such as the elimination of price cut-
ting among growers, and the stabili-
zation of price and supply. ✓



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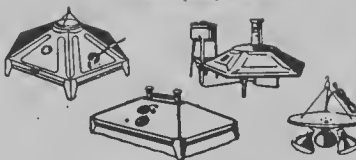
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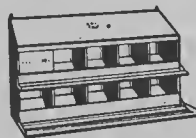


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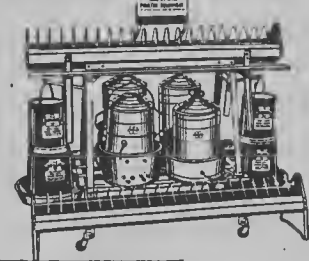


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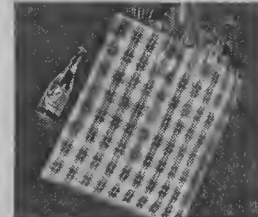
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Blood Test Tells Cattle Parentage

AT the World Jersey Conference held recently in Canada, in July, Dr. R. J. Humble of the Ontario Veterinary College, Guelph, said that about 95 different blood factors had been isolated in cattle, as compared with 15 to 20 in humans. This made it unlikely that two beasts would have identical blood types, aside from certain kinds of twins. As a result, the O.V.C. laboratory has been able to solve 86 per cent of all parentage problems (such as might easily arise where animals are artificially bred) by blood testing. As a result of the availability and efficiency of this test, one breed association requires that all bulls used artificially must be tested for blood type and the result recorded.

Dr. Humble thought it was not beyond the realm of possibility in the future that certain combinations of blood factors might be found related to specific characteristics, such as milk or beef production. Should this possibility become definitely established, the economic value of a calf could be determined more or less at birth. V



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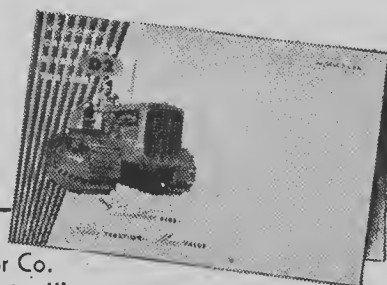
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Wm. MacGillivray, recently appointed Deputy Minister of Agriculture in British Columbia, succeeding W. H. Robertson, retired.

Bread Enrichment

DR. T. L. DAY, biochemist, University of Arkansas, said recently that many deficiency diseases, once very common, have more or less disappeared among North Americans; and that their improved health is due to a considerable degree to the addition of essential vitamins and minerals to our more important foods. He instanced bread enrichment, meaning the addition of certain B vitamins and iron which, generally speaking, contribute to health and well-being.

He also referred to the increase of fortified foods and evaporated milk, to which vitamin D is added for the prevention of rickets. Another additive has resulted in the use of iodized salt, especially valuable in areas like the prairie provinces, which are deficient in iodine, as a result of which many cases of goiter develop. Still another instance was the addition of vitamin A to margarine; and another, the addition of fluorine to city water supplies to prevent tooth decay. V

Get It At a Glance

*A look around at agriculture here and there
for points of interest or value to farmers*

Cereal production in India was five million tons higher in 1952-53 than in the previous year, allowing a reduction in imports and an easing of prices. Imports of cereals totalled two million tons in 1953, as compared with 4.7 million tons in 1951, but market prices have decreased continuously since early 1952. This has led to a gradual relaxing of controls and a 50 per cent reduction in the total population under statutory rationing. ✓

Despite the very large number of breeds of livestock originating in Britain, the Berkshire pig is the only breed native to Berkshire County, which now contains very few herds, though the breed is widespread throughout the world. ✓

Russian plantings for 1954 total more than 400 million acres, a considerable increase over those of 1953. Acreage under spring grains was up 15 million acres, and cotton plantings showed a gain of ten per cent. Reports of inferior tillage and highly alkaline soils may cut grain yields in the newly sown areas, but cotton plantings were made in irrigated sectors where yields are generally high. ✓

Ontario government nurseries have produced 400 million trees for distribution during the past 50 years. Twenty-four million will be produced during the current year. Demand is said to exceed the supply, despite the addition of two more nurseries. ✓

A Minneapolis milling company is beginning to deliver flour in bulk by trucks to bakers in the Kansas City area. Each truck would carry about 40,000 pounds of bulk flour and unload into a bakery in one hour. ✓

The international rice trade exported ten billion pounds of rice in 1953, a drop of ten per cent over exports of the previous year, and only about one-half of prewar exports. Main cause of the decline is the increased use of other grains, plus higher domestic rice production in the large importing countries. ✓

Despite a six-per-cent decline in farm real estate values in the U.S. from March, 1953, average value per acre was still about one-fifth above 1947-49 and nearly double the 1912-14 average in March this year. ✓

The 1951-52 survey of farmers' marketing, purchasing, and related co-ops in the United States revealed the number of associations increased from 10,051 in 1950-51, to 10,166 in 1951-52, a gain of 1.1 per cent. Membership increased from 7,091,000 to 7,363,000 in the same period, for a gain of four per cent. The new membership figure includes almost 4,229,000 in marketing associations, about 3,033,000 in purchasing associations, and over 102,000 members in related service groups. ✓

The largest grain-carrying lake vessel ever built, the Scott Misener, carried 750,000 bushels of export wheat on her maiden voyage from the Lakehead during the first week in July. The previous record grain tonnage for a lake vessel is said to have been held by the McLaughlin, which carried 727,000 bushels. ✓

Japan has 3,500 flour mills with a total daily output of 210,000 barrels, or considerably more than domestic demand. Forty per cent of Japanese flour is used for bread, 50 per cent for noodles, and ten per cent for cake and pastry. Because most Japanese homes are not equipped to bake bread, more than 20,000 bakeries are located in all parts of Japan. ✓

The largest single loan under the U.S. price support program in 1953 went to one big cotton grower who borrowed \$1,269,492.66 on 7,220 bales of cotton. The second largest was \$1,246,516.46 to another cotton grower on 7,314 bales. In all, last year 64 big farmers or land holders took loans of more than \$100,000 each on cotton, corn or wheat from the 1953 crops, for a combined total of nearly \$16 million. ✓

Thailand has decided to drop its plans for increased rice acreage in favor of a drive to produce a better quality product. World rice production is now sufficient to meet demand, and other food is being substituted for it. The government has voted substantial sums to promote the cultivation of other crops so they will not have to be imported. ✓

In January of this year, Britain had 334,390 agricultural tractors plus 58,330 horticultural tractors. Tractor plows numbered 167,540; tractor mowers, 152,800; combines, 21,120; 299,000 tractor trailers; and 83,000 farm trucks. During the last two years there has been a 75 per cent increase in pick-up balers, a marked development of farm electrification, and decrease in horses and horse-drawn equipment. ✓

Charles E. Goode has been appointed assistant livestock superintendent of the Calgary Exhibition and Stampede. ✓

International trade in dairy products last year increased by five per cent over the previous year. Cheese led the way with a gain of ten per cent to a total of 800 million pounds, one-third greater than before the war. Although butter trade increased five per cent, it was still only 85 per cent of prewar. Canada led the way in increased cheese exports by selling seven times the amount disposed of last year, but slipped down in butter exports to less than two-thirds of the 1952 total. Argentina emerged as a dairy product exporter by increasing cheese sales by 80 per cent, and butter sales from 2.6 million pounds to 33.6 million pounds—almost 13 times those of last year. ✓

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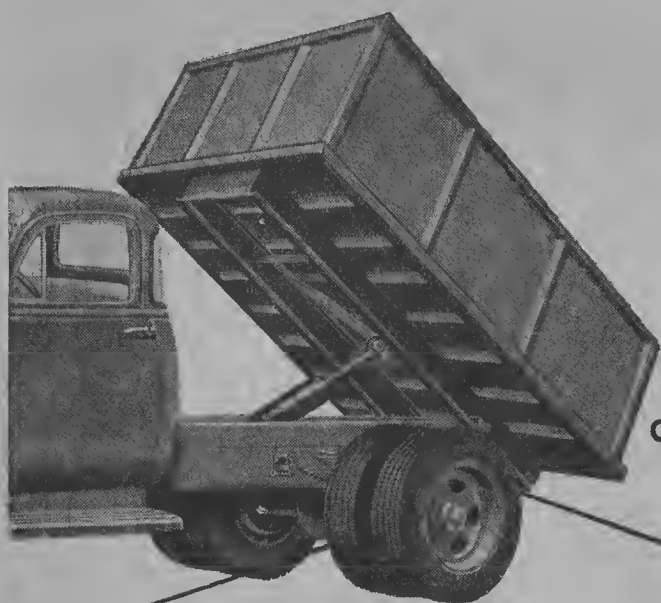
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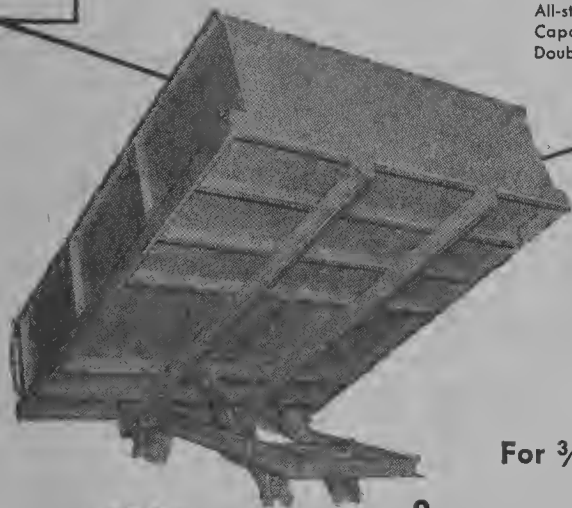
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Rhinitis Can Be Controlled

By practising good swine husbandry, the disease can be kept out of Canadian herds

RHINITIS is still not thoroughly understood by veterinarians, but enough progress has been made by studying the disease during the past few years that veterinarians now say with full confidence that it can be controlled on any farm. Complete control, however, depends on a strict program of feeding, management and thorough sanitation, to keep the pigs healthy and free from contact with the infection. Since the actual organism which causes the disease has not been isolated and identified to the satisfaction of research men, they point out that drugs have not proved to be of definite value.

In fact, Dr. R. C. Duthie, officer in charge of the Veterinary Research Laboratory, Lethbridge, says that chronic atrophic rhinitis (the disease to which we refer) is not a specific infection, caused by any one micro-organism or virus but is rather the end result of an interplay of several factors.

Dr. Duthie points out that rhinitis appears as a chronic condition associated with wasting and destruction of tissue. This involves not only the nasal mucous membranes but extends to the deeper structures (such as the nasal and ethmoid turbinates, the accessory sinuses and the bones forming the nose and roof of the mouth).

Rhinologists are agreed, he says, that malformation of the nasal passages, associated with poor drainage, is one of the most important factors contributing to rhinitis in pigs, just the same as to sinusitis in man. This means that pigs with short turned-up noses, which were popular a few years ago, are more susceptible to the disease than are pigs with normal faces.

This has been illustrated in surveys. For example, in 1947, some Canadian districts showed an unusually high

number of pigs with congenital malformation of the jaw. In a recent survey of market hogs slaughtered in inspected plants across Canada, these same districts were found to be shipping a correspondingly high proportion of hogs showing chronic atrophic rhinitis. In Prince Edward Island, where the survey revealed no congenital malformation, only one suspected case of rhinitis was discovered among 1,040 carcasses examined on the rail at Charlottetown.

However, no matter what the cause of infection, the hog producer confronted with a herd suffering from rhinitis must still attempt to market them at a profit while chasing the disease off the premises.

Several symptoms will be noticed if infection hits the new litters. The young pigs may sneeze frequently, rub their noses in the bedding and shake their heads vigorously. A blood-tinged fluid or clots of blood may come from the nostrils and the snouts may start to curve to one side or the other, or up, even a month after weaning. Scours, unthriftiness, and pneumonia may follow. Piglets a few days old are most susceptible, while as they get older, their resistance increases.

Diseased pigs may be fed off to market weight successfully and they may do as well as healthy pigs if plenty of feed and water is available for them.

Alberta's Provincial Veterinarian, Dr. E. E. Ballantyne, makes these recommendations to hog men intent on cleaning up the disease and promises that they will do the trick. When infection occurs in a piggery, he advises farrowing the pigs in isolation, preferably on pasture and removing weanling gilts to clean quarters as soon as possible. Then, he says, dispose of the adult herd when the animals

LIVESTOCK

can be brought to market weight and keep gilts and boars for breeding purposes only if they are from litters free of rhinitis. Disinfect the pens with lye, soap and water, followed by a disinfectant such as one of the coal tar products, or one of the newer synthetic ammonium chlorides, before putting a new herd in the piggery.

Then, isolate newly purchased pigs for at least a month to be sure they are healthy before putting them with the breeding herd. Thoroughly clean and disinfect the crate before and after transporting new additions. ✓

Planned Crossbreeding For Sheep Success

ALTHOUGH the system is practically unknown on Canadian farms, the Canada Department of Agriculture says that planned crossbreeding carried out with the sheep flock will ensure not only a bigger crop of lambs, but will put more vitality in the lambs and result in a more successful enterprise. It is the accepted practice in Britain.

The Department condemns the practice widely used in this country of using grade ewes and mating them to a purebred ram of the predominant breed to "grade up" the flock. Crossing two unlike types of sheep will guarantee a bigger and healthier lamb crop, it says.

However, in planning a crossbreeding program, sheep men must be fully aware of the characteristics of the different breeds of sheep. There are great differences between different types of sheep. For instance, a "grass" type sheep such as the Cheviot was developed to graze on the Scottish hills. To do this on steep hillsides it developed certain characteristics in its physical makeup not found in the mutton breeds. For instance, it is more angular and agile. The Down or "mutton" breeds were developed for "folding" or getting their living off enclosed areas of turnips or kale, and have acquired a capacity for heavy feeding on roots and concentrates. They are more rounded in conformation, and are much less active.

Crossing two breeds of a similar type such as two of the Down breeds will not give good results, as the individuals are too much alike, and the degree of hybrid vigor will be low.

However, when two "grass" types, such as the Cheviot and the Leicester, are crossed to produce a female for further crossing with a Down ram, this crossbred ewe inherits hardiness,

miliness and a capacity for early maturity. The mutton-type Down ram crossed on such a ewe, introduces vitality, which lessens mortality rates; productivity, indicated by twins and triplets; early maturity, which means lambs marketed off grass at four to five months; and a meaty carcass of good finish.

Highly productive commercial flocks can be built up on a crossbreeding basis by following rigidly a few simple rules. For instance, the Suffolk has been developed, and has long been known as a ram producer. These rams are used to cross on half-bred females. Grade Suffolk ewes, however, rapidly revert to the type of old Norfolk sheep, which was one of the parent breeds. A purebred Suffolk ram on such ewes will not produce choice market lambs, but the same ewes crossed with a Cheviot, for instance, will do just that job. ✓

Cut Erysipelas Losses

SWINE erysipelas losses can be greatly reduced at little expense per animal, says Dr. E. E. Ballantyne, Director of Veterinary Services in Alberta. One man reported a loss of 60 hogs from the disease in 1953, and most of these could have been saved had the man followed the recommendations made. This spring, in one day, 21 pigs, sick with erysipelas were condemned by veterinary inspectors at Edmonton packing houses. These 21 pigs belonged to five men in approximately the same district, and the condemnation represented a loss of about \$1,000 to the owners. Erysipelas is most prevalent in warm months, but cases do occur at any time of the year, and all hog raisers should have at least a general knowledge of it.

Three types of the disease are liable to strike: acute—in which the hogs may be very sick, or die; diamond skin—in which reddish and later dark, diamond-shaped areas appear on the skin; and chronic—where it lingers, producing a bad heart and swollen, stiff joints.

Here is what Dr. Ballantyne says hog producers should do to control the disease.

Call a veterinarian at the first sign of sickness, for an accurate diagnosis and early treatment. Purchase some penicillin or other antibiotics, or serum from a veterinarian, to have on hand for immediate treatment or preventive measures, because early treatment will save nearly all the pigs. Separate sick hogs from healthy ones, and clean and

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NOTE — Farms cannot be inspected after freeze-up.



Holstein-Hereford cross-bred calves like these, says Mrs. Ethel Kerns, of Wimborne, Alberta, who sent us this picture, are growthy individuals.



BOB KERMATH

POPULAR OUTDOOR EDITOR
OF THE MONTREAL STAR
SAYS...

Amongst the many varieties of upland game, there is no species that is more universally popular or affords more fascinating sport than the ruffed grouse, or partridge. Where these birds have been shot at to any extent, there are none more tricky or more capable of providing a real test of the hunter's skill. Much of the success in this type of shooting depends on the individual's ability for fast co-ordination of mind and muscle. But, regardless of the shooter's ability to react quickly, a good deal also depends on the choice of the right gun and ammunition for the job. Since most of the shots offered are within thirty yards, a wide spread of pellets is a distinct advantage and a full choke gun is not advisable. A modified choke, improved cylinder or even a cylinder barrel, is far more satisfactory.

In considering which type of shot shell to use, a word or two should be said in appreciation of our own Canadian ammunition which is second to none in power, performance and general quality. The development of the "Pressure-Sealed Crimp" several years back has practically put an end to blown patterns, and lacquer waterproofing has made the shells impervious to any weather conditions. And when it comes to velocities, energy and killing power, our shells are tops.

Partridge are not as hard to put out of business as are ducks, and with most of the shots at close range, it therefore follows that the use of a relatively small sized shot can be quite effective enough for killing purposes. The No. 7½ Maxum shell, for example, contains about 436 pellets, as against 169 pellets for the No. 4 shot size in the same kind of shell. In this type of shooting a large pattern with good density gives best results. At the usual distances at which partridge are shot the 7½ size pellet delivers more than adequate striking energy for a clean kill. A satisfactory pattern density is one which will ensure five or six pellets hitting within the vital area. The 7½ shot shell used in a cylinder barrel fulfills all of these requirements and will give a very wide spread of shot with an excellent chance of connecting on a fast flying target.



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disinfect the pens thoroughly after an outbreak.

Since the erysipelas germs or bacteria will remain alive in the soil for a year or more, don't use the same pasture two years in a row. V

Know Your Livestock Shrinkage

SHRINKAGE is one of the important factors to consider in selling or buying livestock. H. J. Hargrave, animal husbandman at the Lethbridge Experimental Station, describes the several factors which should be considered in estimating how much to allow.

Long trips mean greater shrinkage, but the loss of weight is not in direct proportion to the distance travelled. The greatest loss occurs in the first few miles. Comfort too, affects the animals, and extremes of hot, or cold, increase the shrinkage. Badly crowded cars, or trucks, and rough runs with many stops, add to the weight loss. Condition of the animals too, must be considered, for tired, hungry, or thirsty animals are likely to show high shrinkage.

The kind of feed the animals have been getting has a bearing, too, and animals that have had large quantities of hay or silage will usually lose more weight than those that have been on a full feed of grain. Laxative feeds result in a high shrinkage. The class of animal is important, too: thin two-year-old feeder steers will shrink more than fat cattle of the same age. Long three-year-old steers off grass will shrink less than long yearlings off grass, while there is little difference in the shrinkage of heifers and steers of the same age. Fat lambs will shrink less than feeder lambs, while hogs usually shrink less than other farm animals. V

Ship Those Hogs In Time

WHEN market hogs are carried past a weight of 210 pounds, feed costs go up and lower grades are received for the carcasses. The University of Alberta, in 1953, found a large reduction in profit over feed costs occurring in pigs sent to market between 220 to 230 pounds. At the low prices prevailing when the work was done, the heavier hogs returned \$1.39 less per 100 pounds liveweight, than those shipped while still under 210 pounds.

The University says this represents the actual loss that a feeder takes if he carries hogs past 210 pounds. Emphasizing this point, A. J. Charnetski, livestock supervisor for Alberta, says that the greatest problem with hogs is not in the types that are available, but in the weights at which they are sent to market. He estimates that in his province, if producers sent their hogs to market at 190-200 pounds, they could increase the Grade A's by over ten per cent, and receive large net increases from their hog enterprises. This is especially true with the larger discounts on off-grades, which became effective recently.

Mr. Charnetski says that if producers have the wrong breeding stock to get a high proportion of Grade A carcasses, that can be easily remedied by purchasing top quality Yorkshire boars and gilts. V

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Deputy Minister of Municipal Affairs.

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[Alta. Gov't photo]

With good weather, this year's harvest will soon be off.

Killing Couch In the Fall

Fields that are infested with couch grass should be one-wayed this fall, in preparation for a concentrated attack next spring

KILLS of couch grass are better in fields where cultivation is started in the fall, than where the first operation is postponed until spring. A. C. Carder, agronomist, Experimental Station; Beaverlodge, Alberta, suggests that exposure of the roots to frost, wind and sun during the late fall, winter and early spring, hastens their deterioration and paves the way for better control.

The one-way disk gave better control at Beaverlodge than was gained with other implements. The combined use of the cultivator and the wire weeder was effective, but the periodic plugging of these implements swung the balance in favor of the one-way.

For severe couch grass infestation the recommended practice is to cultivate with the one-way just before freeze-up, overlapping half the previous stroke each round. Working at a depth of four or five inches brings the roots to the surface.

Immediately after seeding in the spring the one-way should be used. This first operation should certainly not be delayed beyond the beginning of June, and use of the one-way should be continued until freeze-up, repeating every time the couch grass shows more than an inch or two of growth. Nine or ten operations may be necessary.

After the first three operations—one in the fall and two in the spring—single rather than double one-waying is advised. This reduces pulverization of the soil.

Sodium acetate and TCA have been found useful for the control of couch in the early stages. Mr. Carder advises that cultivation still offers the only practical control on a farm where the infestation is very severe. V

Seed Forage In the Fall

FORAGE seed planted after October 15 will not germinate until next spring, and the germination at that

time will begin before field work is possible. The Experimental Station, Swift Current, Saskatchewan, reports that they have had more success from the fall planting of forage crops on stubble land or fields covered with annual weeds, than with similar fields seeded in the spring.

Fall seeding on summerfallow is much less advisable. Erosion or soil crusting frequently causes a poor stand.

The Plant Industry Branch, Saskatchewan Department of Agriculture, says that late fall seeding, properly done, will result in good stands nine times out of ten, if grasshoppers do not infest the fields being seeded. R. E. McKenzie, director of the Branch, advises that no seed-bed preparation is necessary. Clean stubble is the best seed-bed, and weedy cover is satisfactory; neither need be worked. Stubble and weeds hold snow, which provides additional needed spring moisture.

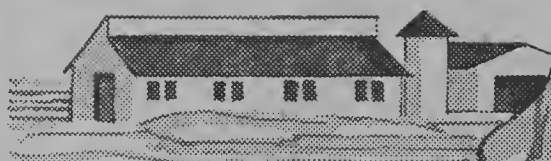
Seed planted before mid-October may sprout and winterkill. Seeding should not begin before this date, but can be continued until the ground is frozen too hard for the drill to penetrate. V

Brome Grass Yields Improved

IN many parts of western Canada the yield of seed and hay on brome fields will fall off very seriously, four to six years after the fields are planted. This is a result of a sod-bound condition, resulting from the rapid multiplication of the creeping root stalks.

In an effort to correct this condition the Experimental Station, Scott, Saskatchewan, attempted to improve yields on old brome stands. They applied ammonium phosphate (16-20-0) and ammonium sulphate (20-0-0) on different plots at rates of 50 and 100 pounds per acre. On another plot they

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applied 12 tons per acre of well-rotted manure. Other fields they one-way disked at two inches and plowed to a depth of four inches, the plowed sod being worked down and seeded to oats at one bushel per acre. All treatments were made in the early spring, before the brome made any growth.

Three years' results showed no increase in hay or seed yields from the use of fertilizer or manure, without tillage. The shallow, one-way disking, alone, or in combination with a fertilizer, increased the average hay and seed yield by 30 per cent. The fields worked with a moldboard plow resulted in no yield the year the operation was done, but doubled both hay and seed yield in each of the next two years. The oat crop largely compensated for the loss of the brome crop the year the plowing was done.

Spring tillage of a sufficiently rigorous nature to thoroughly break up the root system, would appear to be the most effective method of restoring sod-bound brome fields. V

Hay Lands Respond To Fertilizer

THE amount of grass secured from native pasture that has been grazed for many years, can decrease to a small proportion of its one-time production. U. J. Pittman, agronomist, Lethbridge Experimental Station, says that the yield can be substantially increased by heavy, early fall applications of commercial fertilizer.

Ammonium nitrate (33-0-0), ammonium sulphate (21-0-0) and ammonium phosphate (16-20-0), each applied as a top dressing at the rate of 200 to 300 pounds per acre in the Pincher Creek area of Alberta, more than tripled production the following grazing season. Earlier spring growth and a preference by the cattle for the fertilized areas was noted.

Spring application of fertilizer has also been beneficial, but it is more difficult to find time to apply it in the spring. Hay meadows, however, can be profitably fertilized immediately after haying.

Lacking a conventional broadcast fertilizer spreader, an old grain drill with the furrow openers taken off will apply fertilizer to pastures very satisfactorily. V

Grows Rhizoma Successfully

I SHOULD like to tell the readers of The Country Guide of my experience with Rhizoma alfalfa. It was developed as a creeping rooted variety, and I find that some of the plants do creep, but mostly they form into very large, healthy clumps, to heights of three or four feet, until the field is one large alfalfa field.

I have 125 acres of it, and last year seeded another 60 acres, with good results. Very few farmers are successful at growing alfalfa, and they get discouraged and say it can't be grown.

I have read articles saying Rhizoma is not recommended for our areas. I can't agree with the writers of such



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articles, for I have had such good success growing Rhizoma in poor, as well as good soil, that I strongly recommend this variety.

I have some seeded with brome. This I cut for hay and use a roto-baler on it. I get round bales that keep well and are easily handled. The milk cows thrive on it. My milk supply kept even all winter, and the chickens relish the green leaves that are in the bales.

Some say the seed won't set, but I have had no trouble growing seed. I seeded four acres of good Rhizoma

alfalfa and from it I have produced my own seed for the rest of the acres I have seeded, and have sold some seed to my neighbors. — Lars Hagenson, Edgerton, Alberta.

Note: Rhizoma is fertilized in the same manner as other alfalfas, and those who have had no seed-set with Grimm, Ladak, or other varieties should not expect better fortune with Rhizoma. The roots do not creep in most parts of the prairies. Check with your agricultural representative before buying seed.—ed. ✓

After-Harvest Stubble Cultivation

Stubble fields that are worked immediately after harvest frequently outyield those not touched

SOUTHERN Alberta fields that have been bladed after the crop was taken off have been found to be freer from weeds and wheat stem sawfly, and have frequently produced heavier yields than those not worked.

In an 11-year experiment, reported by H. Chester, Lethbridge Experimental Station, fields that were bladed produced an average yield of 14.7 bushels per acre, where those basin listed produced 14.0 bushels, undisturbed fields 13.6 bushels, and one-wayed fields 13.4 bushels per acre.

Fields bladed immediately after harvest produced fewer weeds. Russian thistle was killed before seeds formed and the fall germination of many annuals was encouraged. When fields were worked in hot, dry weather, the drying action of hot winds killed many wheat stem sawfly larvae in the exposed stubble. Some reduction in grasshoppers resulted from the exposing of eggs and breaking of egg pods.

Claims have frequently been made that after-harvest cultivation conserves moisture. It was found at Lethbridge that, though there was a certain amount of truth in this statement, differences in the depth of moisture in the various treated fields were not outstanding.

At the Dominion Reclamation Station, Melita, in the southwest corner of Manitoba, 12 years of work have established that there is a consistent increase in yield on stubble land that is tilled in the autumn and followed by pre-seeding cultivation, as compared with spring cultivation only. This increase has amounted to an average of seven bushels of oats per acre. In 1953 the increase was 18 bushels. Russian thistle, stinkweed, pigweed, ragweed, wild millet and volunteer grain infestations have been reduced by fall cultivation.

It has been found that heavy trash can be handled with the one-way, but light stubble should be tilled with a stiff-shanked cultivator, or a blade weeder, as soon as possible after the crop is removed. Burning of stubble should not be practised; and spring applications of ammonium phosphate fertilizer, preferably 16-20-0, will help to offset the depression in yield caused by working in heavy crop residues.

Immediate cultivation after taking off the crop may have to be modified in fields that are infested with wild oats. It is desirable that the wild oats should lie on the surface until the kernels are thoroughly dried, and this may necessitate postponing the cultivation until later in the fall. ✓



This 70 acres of crop is a total loss due to wild oats. Walter Pawlson, Oak Bluff, Manitoba, took off a fairly clean crop of wheat last year, worked the field down, and seeded 1½ bushels of Montcalm barley this spring. Wet weather and flooding retarded the barley, but not the wild oats, and in late July he decided to work the crop down. He will seed barley again next year.

(Guide photo)



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HORTICULTURE



What not to do: The evergreen at the right was planted much too close to the sidewalk. Years later a new owner planted a Kosta blue spruce to replace it, and has tried to keep both as long as possible. Now the big one must go.

Storing Fruits For Long Keeping

Temperature, humidity and good ventilation are very important for prolonged storage of fruit

THE most important thing to remember about the storage of either fruit or vegetables is that they are alive. It is more important, if anything, to remember this about fruit, than about vegetables, because most of the crops that are properly classed as vegetables are not ripened in storage. They are merely stored. Tree fruits, on the other hand, are harvested when they have reached a certain stage of maturity, but before they are ripe. Consequently, if they are to be kept for the longest practicable period, they must be given the proper conditions of temperature, humidity and ventilation. Of these three, perhaps temperature is the most important. For long keeping, low temperatures retard the ripening of fruits. Studies in fruit storage have appeared to indicate that apples, for example, will ripen twice as fast at 40 degrees F. as they would at 32 degrees; twice as fast again at 50 degrees F. as at 40 degrees; and again twice as fast at 65 degrees F. as at 50 degrees. Thus, an apple that would be fully ripened if held for a month at 65 degrees would, on this basis, take eight months to become equally ripe if it were stored at 32 degrees—assuming, of course, that all other conditions were ideal.

Humidity, however, is also very important, because without a high relative humidity in the atmosphere of the storage room (around 80 per cent), the skin of fruits tends to shrivel, because the fruit itself is starting to dry out.

Ventilation is also important because it helps to control both temperature and humidity. This is especially true where there is no refrigeration in storage and fruit is stored in cellars, or is cooled only by the cool air. Letting outside air in, when the atmosphere is humid, helps to raise the humidity of the storage. Likewise, an open door or window at night,

when the nights are relatively cool, would keep the temperature down.

Prompt cooling is important immediately after the fruit is harvested, and preferably before the fruit is taken into the actual storage room. If ice is available, a few chunks in the room where the fruit is precooled, not only absorb heat from the fruit as it melts, but also increase the humidity.

New Home Orchard Bulletin

A COMPREHENSIVE new bulletin for the prairie home gardener and orchardist is now available. It has been prepared by Dr. W. R. Leslie, whose more than 30 years as superintendent of the Experimental Station at Morden, Manitoba, has given him an unrivalled opportunity to become fully familiar with all aspects of the development of fruit culture in all its aspects over the three prairie provinces. The new bulletin is entitled "The Prairie Home Orchard."

The publication covers all kinds of tree fruits suitable for growing on the prairies and discusses the prairie home fruit garden, from the selection of a site and a discussion of suitable soils, through the entire gamut of orchard operations to a discussion of prairie fruit zones, fruit improvement, exhibits and judging, and a monthly calendar of timely operations. In addition, the bulletin is well illustrated with practical drawings and photographs.

Up to the present time Canada Department of Agriculture bulletins have been obtainable free of charge. Now, this new bulletin, along with numerous other bulletins, is obtainable only from the Queen's Printer, Ottawa. The cost of "The Prairie Home Orchard" is 25 cents. In this change of policy Canada is following the long-established policy of the United States Government, which makes nearly all publications

HORTICULTURE

available only through the Superintendent of Documents, at stated prices. ✓

Fruits At Lethbridge

FOR the most part, horticulturists at the Lethbridge Experimental Station in Alberta have concluded that, except for a few crabapple varieties, tree fruits are not reliable enough in bearing to warrant commercial production. For the farm or home garden, or orchard, however, there are good, hardy, disease-resistant varieties which are worth growing for their contribution to more gracious living.

What is true of tree fruits is also more or less true of some of the small fruits. Gooseberries do not appear to be hardy enough for the area and eventually die out. Only the raspberries and strawberries are really satisfactory and comparatively trouble-free. Under irrigation they have distinct possibilities for commercial production.

The Lethbridge area is, perhaps, one of the most difficult areas in the prairie provinces in which to grow fruits, especially tree fruits, because of the prevalence of chinook winds which give rise to very erratic winter conditions and great variations in temperature, resulting in the death of many plants as well as the freezing of fruit buds following low temperatures in late February or March. ✓

Spud News

THE Manitoba Department of Agriculture this summer sent out a questionnaire to 144 Manitoba potato growers and received returns from 59, who planted 1,987 acres of potatoes this year, as compared with 1,852 acres a year ago. N. Sandar, potato specialist for the Department, estimates the 1954 planted potato acreage at 19,000 acres.

Of the 59 growers from whom returns were received, 41 per cent had used the Pontiac variety this year while Netted Gem rated 11 per cent, Warba 10 per cent, Waseca 8 per cent and Red Warba 6.4 per cent. Manota, Col. Russet, Early Ohio and Kennebec, each rated between 2 and 5 per cent. Several other varieties, Bliss, Triumph, Canus, Irish Cobbler, Canso, Green Mountain, Keswick and a number of others rated 2 per cent or less of the choices. ✓

Shrubs for Alkaline Soil

AS a result of tests made at the Forest Nursery Station, Indian Head, Saskatchewan, Superintendent John Walker is able to recommend certain shrubs for planting in alkaline soils. It was concluded, however, that if, for example, a wind barrier is desired in locations where the soil contains more than a normal amount of salts, the most promising plants to select would appear to be the Siberian salt tree, the common seabuckthorn, silver buffalo berry, and Russian olive.

The Chinese elm, the mountain ash, and the Villosa lilacs suffered a higher degree of mortality during the period. ✓

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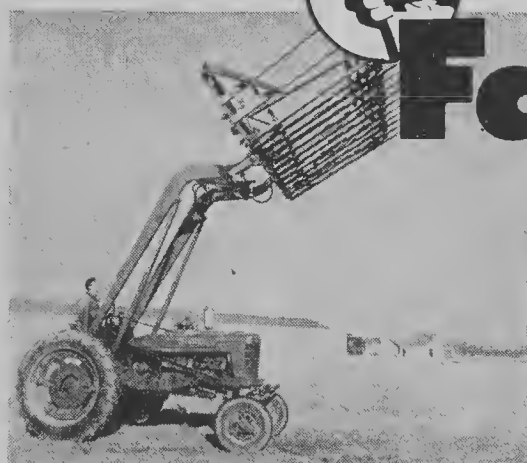


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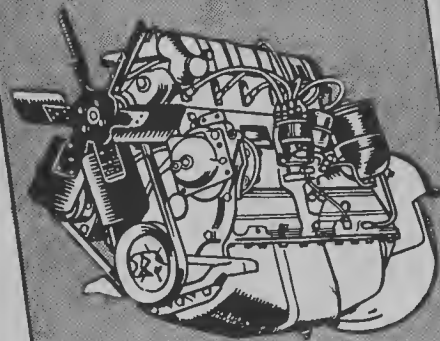
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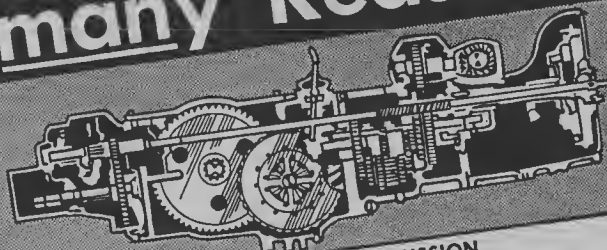
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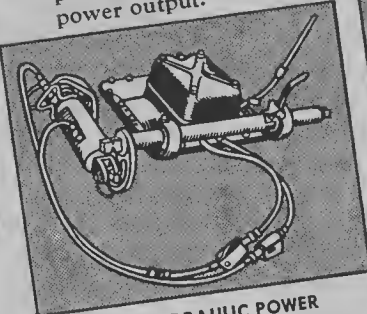
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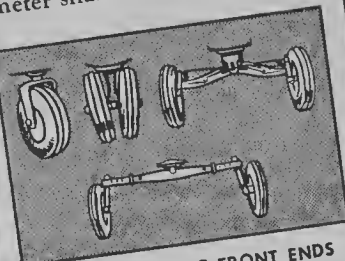
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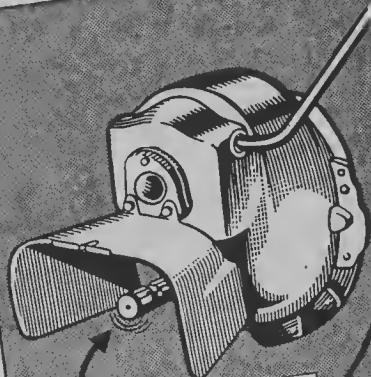
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PROVINCE

POULTRY



Broad Breasted Bronze turkeys on the farm of Mr. F. Smith, Mortlach, Sask.

Keep the Pens Dry

THE Experimental Station at Kapuskasing says that as the weather becomes colder, litter in many poultry houses will begin to take on more moisture, with the accompanying inconvenience of soiled eggs and susceptibility to disease.

To prevent this, provide the pens with adequate ventilation, and don't overcrowd the hens. Birds of heavy breeds require four square feet of floor space, while for light breeds three square feet is enough. Moisture from the pen must be drawn off by ventilation; and houses with well-insulated walls are much easier to ventilate than those with cold walls.

Insulation eliminates cold surfaces where moisture can condense and cause heat loss. Enough air must be moved through the pen to keep the litter dry, and this can be attained with an elaborate system of ventilators, or simply by opening and closing windows.

Build-up of the litter can be started when the pullets first enter the laying pens. One or two inches of fine material such as shavings, dry sawdust, or straw that will break up easily, will do. Then, as it loses its bulk, more can be added and a layer of six to eight inches deep of finely pulverized litter will be accumulated by mid-winter.

Hydrated lime added to the litter at the rate of 25 pounds per 100 square feet of floor space, and raked into the surface layer, will help to keep it dry during the cold months, and also will help to disinfect against coccidia, parasite eggs and other disease germs. The litter should be stirred frequently, and the damp material around the water containers removed, but the foundation should be left intact for insulation. ✓

Eliminating Roosts

SOME poultrymen have eliminated roosts from their laying houses to allow more space for other equipment. To check on the advisability of this practice, the Indian Head Experimental Farm carried out demonstra-

tions to see what effect the absence of roosts has on the performance of laying birds.

It was found that the pens became considerably damper than pens with roosts, and the litter had more tendency to cake, even though it was turned frequently and lime added. Also, there was a higher mortality in pens that were damp. In pens without roosts where the litter was changed at intervals, results were satisfactory. The farm concludes that laying birds can be maintained without roosts as long as the litter can be kept reasonably dry.

Poultrymen with wide pens which require a wider roosting area and reduce the amount of floor space available for other equipment, sometimes dispense with roosts. Elevated droppings pits or boards which make the whole floor area available for the birds can be used too, but the area under the roosts could not be used for feeders. ✓

All-Mash Feeding Of Hens

MOST laying hens have been fed laying mash and whole grain in approximately equal proportions, but now there is much interest in all-mash feeding of layers. Using this system, all the grain is ground and included in the mash, and no whole grain is fed separately. Although this involves the extra cost of grinding all of the feed, it is said to be more than offset by the saving of labor.

The development of high energy mashes has made it possible to maintain adequate energy intake in cold weather without whole grain feeding. If the all-mash ration is properly prepared, it has been found possible to maintain satisfactory litter condition without feeding whole grain.

This system not only saves labor, but assures a balanced diet for every hen, for some hens eat too much whole grain when given an opportunity. However, the advantage still possessed by the mash-and-grain system is the greater ease with which home-grown grain can be used—an important factor on farms which produce all the grain needed for the flock. ✓

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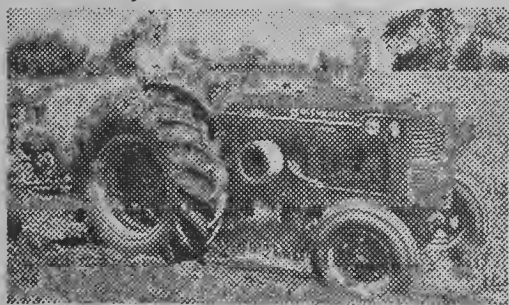
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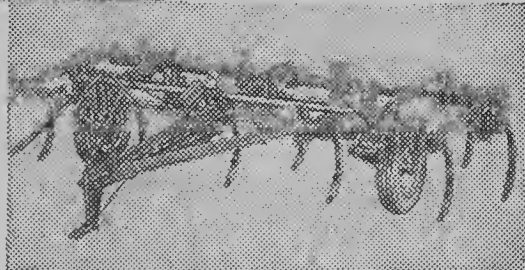
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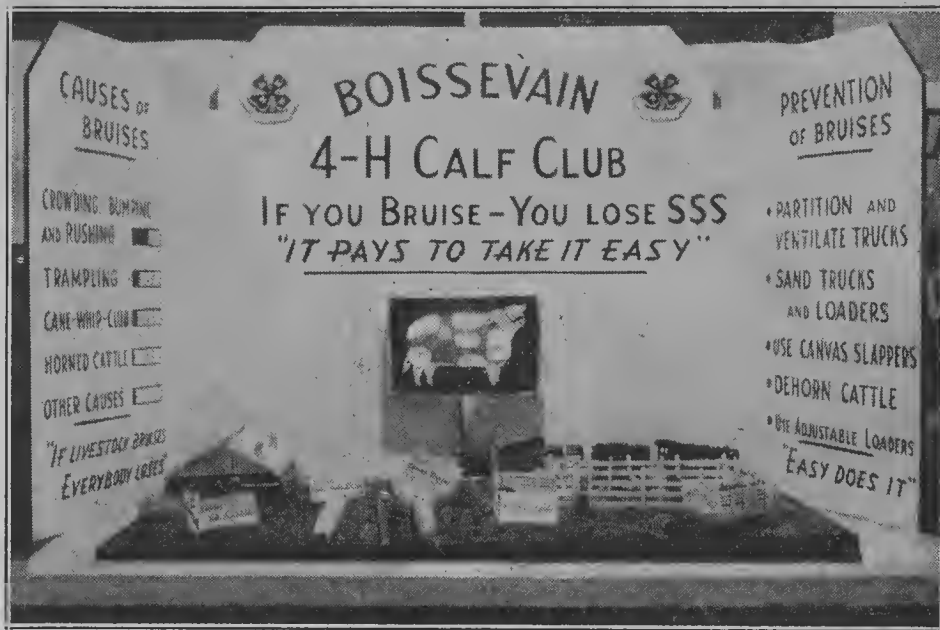
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FARM YOUNG PEOPLE



Don't bruise livestock going to market, said the Boissevain 4-H Club with this exhibit at the Brandon Summer Exhibition. The exhibit won first prize, and club members Grant McCausland and Bob Wright took it to the inter-province competition at the Regina Exhibition where it placed second. There they spent the week living with boys from the other provinces.

Now It's Electrical Clubs

As electric power takes on greater importance clubs are beginning to study its uses

IN 1951, a boys' group known as the Trail Rangers at Carmen United Church, Chilliwack, B.C., decided they wanted to do something more than hold their regular meetings. So they formed a 4-H club, and their subsequent program has been described by Barbara Andrews for readers of The Country Guide.

On one of their first evenings, they joined with their parents and friends to watch films provided by B.C. Electric Company. It gave them the idea of studying more about electricity, and the group became an electrical club. Now, after completing a series of different projects designed to demonstrate the value of electricity and how to handle it safely, they are in a much better position to make it work for them. A local electrician, Fred Phillips, was one of those who came to the meetings to teach the group. He showed them such tricks as splicing wires, soldering, and making a three-way switch. He and other electricians supplied material so they could try it themselves. They were shown how to wind a motor, and the demonstration was followed by a film on the same subject. To give more interest and variety to the club program, and provide a better understanding of the power with which they worked, field trips included a visit to the Ruskin Dam on the north side of the Fraser River, near Mission.

Already many of the members have learned the correct and safe way to handle and fix appliances around the home. Some have worked out schemes of their own to make lamps, or toy electric motors that really work. And this year, three projects are lined up for the Chilliwack Fair. Splicing and connections are included, as are hand-made electric motors, generators, telegraph sets, or similar pieces of equipment, and finally, the winding and assembling of factory-made motors. This year's executive has Bill Wiffen as president, Sandy Demerse as vice-

president, Jerry Pirie as secretary, and Harold Bell as treasurer. Club leader is Wes. Bailey.

Meanwhile, across the country, in Ontario, the rural electrification club idea has been tried and with such success, says agricultural representative A. G. Skinner, that 21 members carried their projects through to completion with an exhibit on Achievement Day. The exhibits included comparisons of transmission lines, various motors, a demonstration of the use of heat lamps, and of hay-drying equipment. All of these were possible only because the members had learned the principles of rural electrification, and how to use equipment available.

Again, much of the assistance with club work came from the Ontario Hydro-Electric Commission. The members visited the huge new Niagara Power Development, the source of their power, and traced the power through the high tension lines to the main substation, through to other substations in the farm area, and right to the farm. Safety in handling electricity was emphasized, lectures and demonstrations were given on the use of motors, and, finally, the group visited a farm to see at first hand the electrical layout using a central distributing point from which the farm buildings were serviced. V

Fewer University Graduates

FIGURES released by the Department of Labor indicate that the number of students graduating from agricultural colleges is lower in 1954 than in any of the past five years. It is expected that the number graduating in the years 1954 to 1957 will remain at about this year's level, and the low point in the number of graduates is attributed mostly to the low birth rate during the depression years. The low point in enrolment has probably been reached, says the report. V

Letter From Rome

by JOHN ANDERSON

Food, People and Prices. In announcing the publication of its annual report on "The State of Food and Agriculture," the U.N. Food and Agriculture Organization says that for the second year in succession, world food production has risen faster than population has increased. The actual rise in production was greatest in Western Europe and the Near East. As for prices, the report says that while prices have fallen in North America, prices in Western Europe have remained stable, and in some countries elsewhere have increased. Consumer prices generally have not dropped anything like as much as farm or wholesale prices. V

Cheaper to Co-operate. The \$90,000 now spent in a year by a representative committee of six Central American countries does more toward preventing crop losses from locust swarms, than did the more than \$500,000 previously spent each year by the same countries acting independently. This information, coming from F.A.O., shows that the co-operation between Costa Rica, El Salvador, Guatemala, Honduras, Mexico and Nicaragua, in locust-control measures, is proving effective. The co-operation dates from 1949, when a formal agreement was signed. Technical assistance is provided by F.A.O. experts, whose location of the main locust breeding areas has been an important factor in the battle. V

Hunger Breeds Hunger. Writing on food and farmers' productivity recently, Josuè de Castro, chairman of the F.A.O. Council, stated that even back in 1935, the productivity of the average Chinese farmer was no more than one-thirteenth of that of his



"Let's go, Al. We'll look for my glasses tomorrow."

American counterpart. The cause of the Chinaman's backwardness, Professor de Castro explains, was hunger—chronic hunger—leading to lack of energy and consequent incapacity for work. V

First European Foot-and-Mouth Commission. From 1950 to 1953, \$600 million of damage was suffered by the European livestock and animal products industries as a result of foot-and-mouth disease, but disagreement as to most suitable preventive methods has contributed to delay in the formation of an effective F.A.O. commission to fight the disease on an international co-operative basis. It was two years ago when the setting up of the commission was first considered, but only just now has the first meeting actually taken place. Even then only six na-



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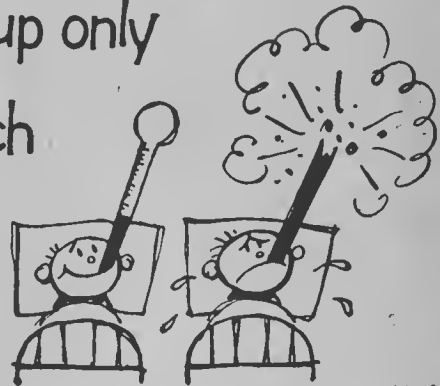
double what they were before

the war... Esso gasolines

across Canada are up only

42%...about a third as much

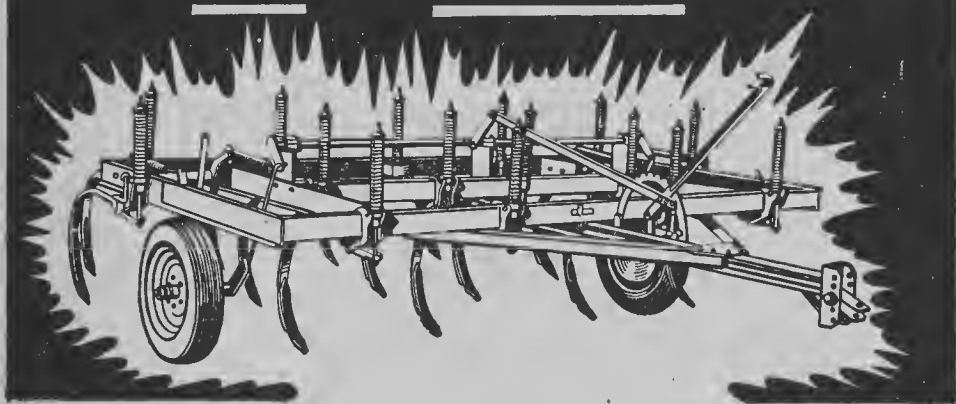
as most other things.



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tions—Denmark, Ireland, Netherlands, Norway, United Kingdom and Yugoslavia—actively participated, although other countries, including Russia, sent observers. Among the leading items on the committee's program of work are: gathering information, reporting new outbreaks and—not surprisingly—getting more members. ✓

F.A.O. Meet in Latin America. Twenty Latin American countries as well as France, Netherlands, United Kingdom and the United States, are expected to attend the third F.A.O. meeting on food and agriculture programs and outlook in Latin America. The meeting takes place at Buenos Aires, September 1 to 10, and among the subjects to be discussed will be economic incentives to farmers and the services that governments can give to farmers. ✓

Devils on the Move. Wadi Jizan is in Saudi Arabia, in a remote, trackless area of rock, sand and oven-like heat. It is an area which even the Arabians themselves formerly thought fit only for Shaitan (Satan) and his attendant evil spirits, who showed themselves from time to time in the tall dancing columns of wind-twirled dust. But sometimes it does rain there—usually twice a year—and some people do live there, miserably trying to conserve what water they can after the rain has fallen. In the course of a water resources survey, an F.A.O. team came to the place. What they saw made them think that perhaps the country around need not always be so dusty, barren and inhospitable, for when the rains did come the gully of Wadi Jizan became a wild, roaring torrent, advancing behind a solid wall of water 40 feet high and passing at a rate of over half-a-million gallons a second. The F.A.O. team are back at their headquarters in Rome now, and doubtless they will soon present the Saudi Arabian government with plans showing how that water may be caught and usefully conserved, instead of being allowed to run to waste as before. Shaitan and his devils must look for new accommodation. ✓

Red Sails in the Cupboard? Alan Glanville, a fisheries expert from Ireland, is a believer in the principle of "persuasion by demonstration." Sent to Ceylon by the U.N. Food and Agriculture Organization, he had the task of doing what he could to improve the island's fishing methods and one of the active steps he took was to install without charge small diesel marine engines on three of the local fishermen's boats. Normally in the tropics, fishermen rely on the off-shore breeze in the morning to carry them out to the fishing grounds and on the sea breeze in the afternoon to bring them back home. The other Ceylon fishermen were not slow to realize that the three with the engines were getting to the fishing areas sooner, getting bigger catches and getting these catches back to the market in good time, regardless of the vagaries of the breezes. At the end of six months, the three power fishermen were given the opportunity of buying the engines that Alan Glanville had installed. They jumped at the offer and the wind and muscle fishermen wanted their share of the bonanza too, so now the first 40 of a new batch of engines supplied under the Colombo Plan are on their way to Ceylon to be purchased by the fishermen on easy terms. ✓

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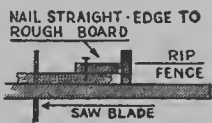
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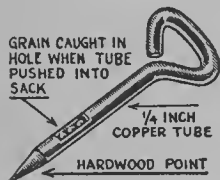
Some Helps For September

A round-up of ideas to make work-bench chores easier or more efficient

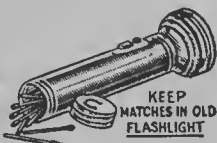
Straightening Crooked Boards. I straighten boards with crooked edges by tacking a straight board to the top of the crooked one, so that the straight board bears against the rip fence. I adjust the straight board to remove the minimum required to straighten the edge of the crooked board. When one edge is straightened, ordinary cutting in the saw will straighten the other. I keep a 3/4-inch by 4-inch board 7 feet long around the shop for this and other uses.—O.T., Man. ✓



Grain Sack Sampler. Made out of 1/4-inch copper tubing, this device enables the taking of samples of seed without opening the sacks. The opening in the tube should be about one inch long, and the point is made out of hardwood. In use, hold the opening upward and force the point through the side of the sack, and withdraw.—H.E.F. ✓



Emergency Match Box. A discarded flashlight makes a handy and safe match box. Simply remove the batteries and fill the case with matches. If the top is taken off and a piece of sandpaper screwed in on top of the glass a handy place is provided for striking matches.—O.I.T. ✓

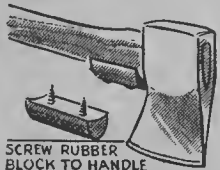
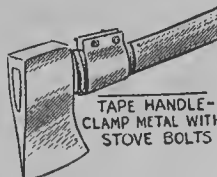


Holds Sign To Post. To hold "No Hunting" signs, when I wanted to post my land, I nailed sections of an old tire to the back of the boards. I can slip these over fence posts, and at the close of the hunting season they can be taken down in a few minutes.—D.I.W. ✓

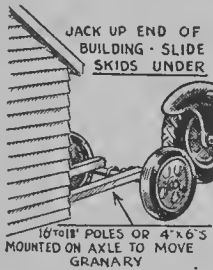
PIECE OF TIRE NAILED TO BACK OF SIGN



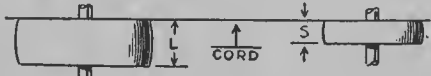
Axe-Handle Guard. It is easy to scar an axe handle when you are splitting wood, if you do not hit the block squarely. To prevent this I taped the five inches of the handle nearest the head with three layers of tape, doubled a piece of heavy galvanized metal the width of the tape, drilled two holes at the top, as shown, and clamped it all with two stove bolts. An alternative method is to cut a piece of rubber from an old tire to fit under the handle and hold it in place with a pair of slim screws.—F.I.T. ✓



Safe Granary Moving. There is nothing easier to do than to damage floor joists when hauling portable granaries over a stubble field. I fastened two long poplar poles (four by six's would do) to an axle between two wheels, and to move a granary I jack it up and work the poles right under, so the granary pulls light and is clear of obstructions.—B.C.G., Alta. ✓



Easier Alignment. It is sometimes difficult to align gears, sprockets or pulleys of different widths. A simple

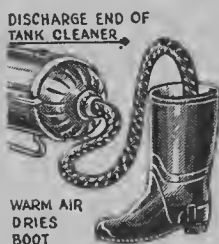


method is to align one side with the aid of a piece of string, as shown in the illustration, and mark the position on the shaft of the smaller object; next subtract the width of the smaller object, in inches, from the width of the larger, and divide the difference by two. This is the distance to move the smaller object from the mark that was made on the shaft.—W.F.S. ✓

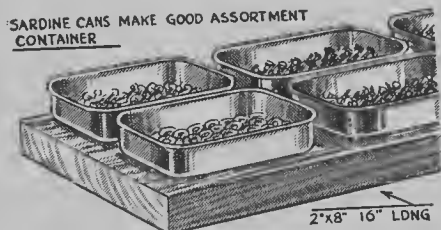
Safer Kindling. If you must use kerosene for starting a fire, a safer way than applying it straight is to fill a gallon pail with a tight lid, full of sawdust or shavings, and pour on kerosene until it is well soaked. When building a fire, put a little of it under the wood, see that the pail is closed, and touch a match to the kindling.—H.I.C. ✓



Fast Drying With Warm Air. A variety of articles can be dried quickly by connecting the suction hose to the discharge end of a tank-type vacuum cleaner. By thrusting the flexible hose into the part to be dried a large volume of warm air will be forced over the damp parts. This method can be used to advantage around the home for drying footwear, mitts, and other things.—O.T., Man. ✓



Tack Tray. I took a 2 x 8-inch plank 16 inches long and nailed six sardine



cans onto it. It makes a handy container for washers, canvas tacks and the like. A handle could be put on.—E.L., Alta. ✓



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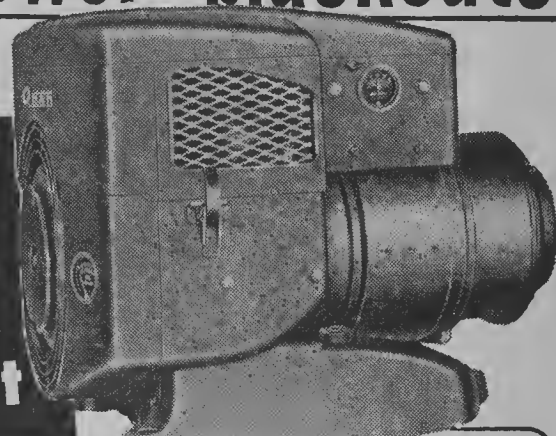
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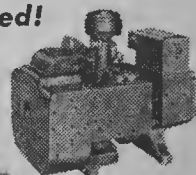
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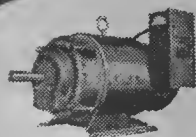
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A Look Ahead

Items that offer proof of the many approaches being made in the field of farm science

The tips of roots were formerly thought to absorb mineral nutrients from the soil. Now, it appears from work done at Duke University where radio-active nutrients were used, that absorption occurs in the more mature regions of the root where root hairs are present. Scientists supplied such elements as phosphorus and strontium to barley roots, at various distances above the tips, and were able to get pictures showing the distribution of these mineral nutrients. When the roots were exposed to ordinary photographic film, they took pictures of themselves, as it were, and wherever radio-active materials were present, a bright light appeared in the root zone. When only the tip was supplied with mineral nutrients, the photograph showed a bright area only at the tip. This indicated that the nutrients had not moved up the root to other parts of the plant. When supplied to the root about an inch away from the tip, the autoradiograms (pictures) showed that the minerals were distributed throughout the plant. ✓

Water shortages have followed the westward expansion of population in North America. Rain does not follow the plow, as the dustbowl in Canada and the United States proved in the 1930's. Periods of abundant water and drought seem to alternate, according to Carl G. Paulsen, Chief Hydraulic Engineer, U.S. Geological Survey, but the growing scarcity of water in North America is due to greatly increased use, rather than to a decrease in water resources. It is said that industry in Pennsylvania alone used ten billion gallons of water daily in 1951, or around two-thirds as much water as was supplied daily by all the municipal water systems in the United States. The problem from now on will be to conserve water and avoid waste. ✓

Chlorosis in plants is a condition which causes the leaves to become very pale or yellow. It often occurs in soils that are alkaline, or in irrigated areas where the water is too alkaline. Research workers at the University of California, working with the chlorotic condition resulting from excessive lime in the soil, have treated these lime soils with chemicals containing iron, or what are called chelating agents. This treatment controls the chlorosis effectively, causing the trees to become green and to stay green for several months. ✓

There is an Arab legend which suggests that it was not eating apples which drove Adam and Eve from the Garden of Eden but eating the hard, dry acacia fruit. The Garden of Eden is supposed to have been located at the junction of the Tigris and Euphrates Rivers, and a log found in a small Arab village there, is from the original Tree of Knowledge, according to local legend. Shavings from the log by a Michigan investigator proved the wood to be that of an acacia tree. ✓

Scientists now have the idea that certain diseases of animals such as fowl cholera, swine plague, and some respiratory diseases in cattle, sheep and goats, may all stem from a common source. This common source is a type of bacterium which has been generally classified as *pasteurella*. Strains of this bacterium have been collected from animals all over the world and studies seem to indicate that there were only two types of bacteria in the group. Thus, if penicillin is found to be effective against one of these diseases, it should be equally effective against the others, whereas previously, each disease has been treated as if caused by a different organism. ✓

Milk changes its flavor, as well as undergoing some loss in vitamins, if it is left standing in daylight, in glass bottles, for more than half an hour. At the Pennsylvania State Experimental Station it has been discovered that one of the amino acids in the milk is changed chemically under the action of the energy of the sun. This amino acid is methionine, and the effect is intensified by the fact that riboflavin, a natural constituent of milk, is at least partially destroyed. Most of the vitamin C is also destroyed. Discovery of the methionine-light relationship came from the discovery that a dilute solution of methionine in water, when exposed to sunlight, developed a flavor that seemed identical with the sunlight flavor of milk. Adding a little methionine to skim milk increased the "sunlight flavor." ✓

Soap and water may not be good germicides after all. However, if they contain free fatty acids, that is chemicals uncombined into soap, they can hand the bacteria a wallop by coating them with fatty acid molecules and causing suffocation. ✓

The growth of new species of plants or animals can take place by a type of plant mechanism discovered to exist in *Clarkia*, a fairly common garden flower. A University of California geneticist has found that *Clarkia* occasionally adds a chromosome to its regular number. It normally has nine chromosomes, but occasionally may divide so that in one of two cells there will be ten chromosomes and in the other, eight. The latter die off, but the ten chromosome cells may survive and give rise to sex cells which are able to function. The appearance of the plant may be no different, but it has a greater capacity for mutations, or sports. Thus, in time it may become a completely different plant from its parent species that has only nine chromosomes. Dr. Harland Lewis, of the California institution, has demonstrated this to have occurred in *Clarkia*. It is believed that this is the first time the production of a new species, by the addition of a chromosome, has actually been demonstrated. ✓



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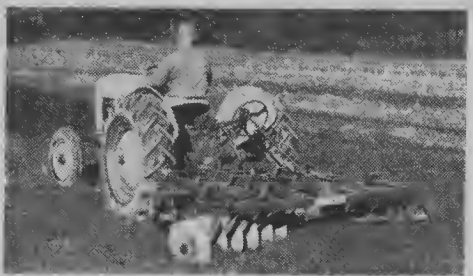
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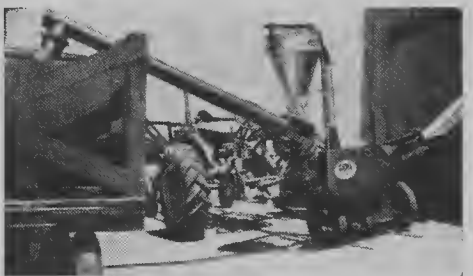
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This auger feed conveyor makes it possible to fill wagon box, truck or outdoor feedlot bunker without bagging or handling the feed. This accessory equipment can be obtained to fit any model 41 Gehl hammermill with P.T.O. drive. (Gehl Bros. Mfg. Co.) (47) ✓



The positive vertical action of the angular steel blades of this John Deere lime-fertilizer distributor is said to force through all types of lime and commercial fertilizer, whether it is wet, lumpy or crystallized, and distribute it evenly. (John Deere Plow Co.) (48) ✓



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For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg, giving the key number shown in parenthesis at the end of each item, as—(17).

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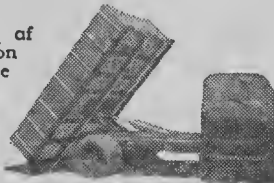
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MONTHLY

Initial Delivery Quota Policy

Details of the initial delivery quota policy for the current year were announced by the Canadian Wheat Board at the close of the 1953-54 crop year. The system was changed considerably from that in effect last season in that it recognized variations in monetary values of different cereal grains and indicated in its provisions consideration of the tight storage position at western country elevators.

The initial delivery quota, which will become effective at a date to be announced later, is based on a unit system consisting initially of one hundred units. Each unit will be the equivalent of three bushels of wheat, or eight bushels of oats, or five bushels of barley or five bushels of rye. When space becomes available and when authorization is given, every producer will be permitted to deliver any one of three hundred bushels of wheat, eight hundred bushels of oats, five hundred bushels of barley, five hundred bushels of rye or any combination of these grains which, when calculated on the unit basis, does not exceed one hundred units. Such deliveries will become permissible regardless of the acreage shown on the producer's 1954 permit.

When authorized the initial delivery quota will become part of the minimum quota which the Board intends to establish for all producers as space permits. With the currently tight storage situation in the country's elevator system, the granting of the total intended minimum quota at this time would result in hardship for many producers. Hence, the balance of the intended minimum quota will be handled on the unit system as space becomes available after which it is the Board's intention to institute quotas based on specified acreages as applied during the past crop year.

Under the initial quota system in effect last year, provision was made for a minimum delivery of a specified number of bushels of grain.

First in effect was an initial delivery of three bushels per seeded acre with a minimum delivery which permitted a producer, regardless of acreage, to deliver up to five hundred bushels of any grain. This policy was designed to give the small producer the same initial income as the large producer but since the system did not take into account the relative monetary values of the different grains, the greatest advantage accrued to those who were able to deliver the initial quota in the form of wheat. Wheat is produced for market on the majority of western Canadian farms but there are some farmers who produce little or no wheat. In adopting the new unit system of initial deliveries the Board has taken these monetary relationships into consideration in an effort to serve better the interest of the producers irrespective of the type of farming practised.

The Board was not motivated entirely by the desire of ensuring initially, somewhat equal returns to all producers. The adoption of the unit system was influenced undoubtedly by the Board's desire to maintain adequate supplies of barley and oats

in commercial position and it will be noted that the monetary return under the unit system is somewhat greater on deliveries of oats and barley than it is on equal quantities of wheat. The demand for these grains has remained strong generally throughout the past crop year. Under the specified acreage system in force last year, producers delivered the higher priced wheat whenever possible with the result that the Board was forced to take special measures to maintain adequate stocks of oats and barley. It is thought the new system will bring forth greater deliveries of coarse grains than was the case a year ago. If this system fails to result in sufficient to meet respective demands the Board will still be in a position to resort to temporary embargoes or special quotas for particular grains.

Pending the authorization of initial deliveries, the Board is permitting (effective since August 1, 1954) producers in a position to do so, to deliver up to one thousand bushels of either oats or barley or any combination of these grains not exceeding one thousand bushels. This action is taken to ensure immediate delivery of sufficient quantities of these grains to meet market requirements. All deliveries under this authorization must be made at the delivery point specified in the producer's 1954 Permit Book. These deliveries are not counted part of the 1954-55 quota. This authorization on special deliveries of oats and barley will be subject to cancellation by the Board on the effective date of the initial quota policy.

The Board is continuing its policy of accepting applications from growers of malting or pot and pearling barley for permission to ship carload lots of these types of barley in excess of quota regulations. Permission to ship such grain is only granted where it is shown that carload lots have a buyer on a premium basis.

There is no indication at this time as to when the Board will declare the initial delivery quotas in effect. The decision to defer the effective date was the result, in part, of the Board's desire to obtain larger working stocks of oats and barley at as early a date as possible. Further, deferment is affording time for officials to examine thoroughly the space position of the country elevator system following the heavy marketings during the latter part of July. Deferment is made possible, of course, because of the lateness of this year's crop in most sections of the West.

Year-End Appraisal

Marketings of grains by western producers during the 1953-54 crop year are expected to exceed six hundred million bushels when all the figures are tallied, according to a Canadian Wheat Board release to the grain trade. This figure compares with the all-time marketing record of eight hundred and forty-five million bushels in 1952-53 and average marketings of four hundred and seventy-four million bushels during the ten year period from 1941-42 to 1950-51 inclusive. Wheat deliveries in the past crop year were expected to approach

COMMENTARY

four hundred million bushels representing an average delivery of slightly over sixteen bushels per seeded acre.

The Board report indicated that western farmers had delivered two billion, one hundred and seventy million bushels of grain during the past thirty-six months. At the end of this period (July 31, 1954) stocks of grains on western farms were considered to total less than three hundred million bushels.

Because country elevators had very little space unfilled at the commencement of the 1953-54 crop year, the extent of producer marketings during the year reflected fairly accurately the actual disposition of western grain in the domestic and export trade. Final figures, says the Board, will probably show that the commercial disappearance of western grain in domestic and export markets for 1953-54 amounted to some five hundred and seventy-five million bushels, approximately twenty-five million bushels below the producer marketings.

The 1954-55 crop year commences with much the same country elevator position as one year ago. Therefore, once again the extent of producer marketings will depend very largely upon the rate at which western grains move into domestic and export channels. The Canadian Wheat Board ventures the opinion that, as things appear at the present time, producers' marketings should be steady throughout 1954-55. A Board release to the grain companies states in part:

"While the extent of domestic and international demand for western grains for the crop year 1954-55 is not yet established, the Board at this time does not see any reason for lesser producers' marketings in 1954-55 than in the crop year which has just closed. In other words, the outlook for producers' marketings of grain in 1954-55 is somewhere in the neighborhood of six hundred million bushels with some variation depending upon market developments." v

Carryover at New Peak

The Dominion Bureau of Statistics estimated the carryover of wheat, oats, barley, rye and flaxseed at a record 876.8 million bushels on July 31st. This figure is approximately five per cent greater than the previous record of 832.3 million bushels in 1943 and better than two and one-half times the 1944-53 average of 324.8 million bushels.

The Bureau estimated a total of 587,487,000 bushels of wheat on

farms and in elevators at the same date. This figure is some seven million bushels below the record wheat carry-over of 594.6 million bushels in 1943. The 1954 wheat carryover is approximately 22 million bushels greater than last year.

The current livestock picture appears to indicate a sizeable utilization of coarse grains during the next six months and it is hoped that export sales will be of reasonable volume. Consequently, the major concern will be with the disposal of as large volume of wheat as possible.

The 1954 Canadian wheat crop has been estimated by the Bureau of Statistics at 513 million bushels — 100 million bushels less than last year. The outturn of the three prairie provinces was placed at 487 million bushels against 584 million a year ago. Thus, the total supplies of Canadian wheat will exceed one billion, one hundred million bushels if the Bureau's estimate of this year's production is realized. This is better than three times the amount of wheat disposed of last year through domestic and export channels. Clearly the picture is not one of an easy situation.

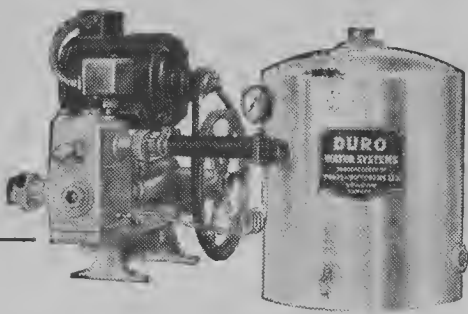
To the south of us, the United States expects a wheat crop this year of 977 million bushels, and she has a carryover of 900 million bushels. When harvesting is completed this fall, the two countries will have a combined total of close to three billion bushels of available wheat.

Meanwhile there may well be the uneasy question of price drop in many minds. The United States Congress has approved 82½ per cent instead of the present 90 per cent of parity as the basis of calculating the new support price. Unless the United States Administration feels it can hold present prices in the export market and so reduce its subsidy bill, an eventual drop of some ten cents a bushel in the American selling price would seem inevitable. A drop in support price of something like 18 cents per bushel would not become effective, however, until 1955.

A complicated formula, based on supply and demand, determines the minimum support level for each of the basic crops. Almost certainly, a system of flexible supports ranging between 82½ per cent and 90 per cent will be established. The Secretary of Agriculture has power to raise the supports up to 90 per cent of parity if emergency conditions warrant. With a huge surplus overhanging the market, the minimum support level is likely to be in effect for wheat in 1955. v



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Livestock Marketing Prospects

Cattle marketings have been higher this year and more hogs are in prospect for the fall months

CANADA'S cattle population has failed to keep pace with her human population over the past 80 years. The present ratio of 0.6 head of cattle to each human is the lowest since Confederation. With the human population at its present level we would need an additional 1.7 million head to raise the ratio to its long-term average of about 0.8 head. Such an increase would bring our total cattle population to 11 million head. We will probably not reach that mark in the near future.

Under the impetus of World War II, the total number of cattle on Canadian farms reached a peak, in 1944, of 10.2 million. This dropped back to some 8 million head in 1949, then recovered to 9.3 million by December 1, 1953, giving a net loss for the nine-year period of about a million head. Some 57.9 per cent of the 1953 total represents cattle in the eastern provinces, and 59 per cent of all eastern cattle are in Ontario.

Cattle population has declined in all provinces except Ontario, where the increase was 300,000 head—from 2.8 million in 1944, to 3.1 million at December 1, 1953.

From 1945 to 1950 the cattle population of the United States declined similarly, dropping from 85.6 million to 77.9 million head. By 1951 this trend was reversed by an increase of over four million head. Although this build-up continued to an all-time high of 94.6 million head by January 1, 1954, it is generally believed that the U.S. increase, as in Canada, has reached its peak. Beef cattle price levels in Canada will depend on the numbers marketed each week here, as well as on the state of the United States market. If more cattle appear than can be consumed in Canada, prices will have to adjust themselves to the export outlet. This is the key to our beef cattle sales.

CANADA'S commercial cattle marketings in 1953 totalled some 1,749,000 head, an increase of about 20 per cent over 1952. Two-thirds of the 1953 turnover was marketed in public stockyards.

Last year, exports to the United States totalled about 98,000 head of cattle. This included 64,598 head shipped alive (23,225 for feeding, or immediate slaughter, and 41,373 classed as dairy or purebred), and the balance of about 33,000 head went in the form of dressed beef. Exports south of the border represent 5.6 per cent of our total marketings, and exports to all countries including the United States amount to about 8.9 per cent.

Marketings for 1954, so far, have shown an increase of 18 per cent over the same period last year. Alberta has the highest increase, with 28 per cent, while Ontario records an increase of 15 per cent. The average weekly total for the last quarter of 1953 was 40,081 head. On the basis of an 18 per cent increase, the average weekly total this year should be about 47,300

head, which may be more cattle than the Canadian consumer will buy at prices above those of the U.S. In that case, some grades of cattle will have to be exported at a price level based on United States markets. Any hold-back on the part of producers, or an increase in domestic consumption, or a combination of both factors, could bring the cattle marketings into balance.

Exports to the United States during the first 29 weeks of 1954 totalled approximately 70,000 cattle. Of this number 57,334 were shipped alive, including 32,322 for immediate slaughter, 6,940 for feeding, and 18,072 classed as dairy or purebred. The balance of the export total was shipped as dressed beef. The 70,000 head represents seven per cent of our total marketings for the first half of this year.

Beef cattle prices at Toronto held fairly steady until about the middle of June, when a rather sharp decline was registered. Continued heavy rains, hot weather, a somewhat unsettled U.S. market, and a slightly pessimistic attitude on the part of cattle feeders, were the chief causes. Prices moved up again sharply during the week of July 10, following two short runs, so that grain-fed steers and heifers were still in demand at the improved prices, by the month's end.

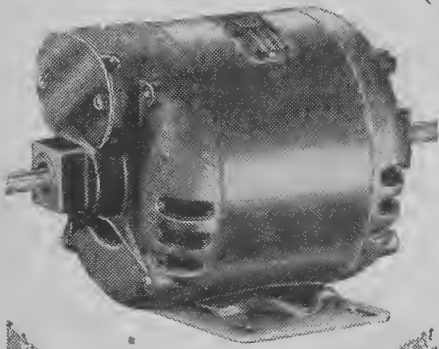
UNOFFICIAL reports from the U.S. beef trade this year indicate no summer price-rise like that of last year, and indicate that fall prices will be a little lower. If drought conditions force unexpectedly large cattle marketings this fall, price effects will be felt chiefly on the lower grades of cattle.

The Canadian trade holds that there is an ample supply of cattle available and that some grades will likely drop down to the price level of the United States markets (less exporting costs, alive or dressed). Drought conditions in western Ontario are forcing some unfinished cattle into the market, and may have some effect on the demand for feeder cattle.

Canadian farmers have shown a greater interest in feeding cattle in the past two years. The number of feeders purchased at public stockyards in 1953 amounted to 221,059 head, as compared with 165,800 head in 1952. Although no official figures are available, it is estimated that about 500,000 cattle were placed on feed, last fall. For the first 29 weeks of 1954 farmers purchased a total of 76,097 feeders at public stockyards, as compared with 59,720 for the same period in 1953.

The most outstanding feature of the beef business in this country has been the increase in domestic sales. The weekly average for these increased from 22,000 in 1952 to 28,300 in 1953; this year's average to date is about 31,200 head per week. Part of this increase is due to the tremendous expansion of the western

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Canadian market, and part to the change in relationship between cattle and hog prices. For the first half of 1954 the cattle price has been approximately 70 per cent of the hog price, which is close to the long-term average of 75 per cent. Three years ago, cattle prices were about one and one-half times hog prices.

TO improve hog quality is one of the most important jobs facing the Canadian swine industry. Only 25.7 per cent of total gradings for the first 29 weeks of this year made Grade A, largely because hog carcasses carry too much fat. This is uneconomical, because consumers want less fat, and housewives will pay less for lard than for vegetable shortenings. Practically all of the fat trimmed off at packing plants is rendered into lard, and brings the producer from seven to nine cents per pound—in sharp contrast to the price of Grade A carcasses. Furthermore, finished fat carcasses are less desirable than Grade A, which means that consumers may turn to competitive products. This factor provides one of the reasons why our 1953 domestic consumption reached a three-year low, and has dropped an average of 14,000 hogs per week during the first five months of 1954, as compared with the same period last year. Surplus fat hits the producer in the pocketbook, and hits him hard.

Hog gradings in Canada reached a high of 8.9 million in 1944, but dropped back to 4.9 million in 1951. They increased again to 6.7 million in 1952, and dropped 25.3 per cent to five million in 1953. In that year marketings in the East represented 56 per cent of the nation's total, and 66.1 per cent of these came from Ontario.

Gradings for the first 29 weeks of this year were down 8.7 per cent, a decline of 7.6 per cent in the West as compared with 9.6 per cent in the East. However, for the five weeks ending July 31, gradings averaged 82,579 hogs per week, or 7.6 per cent over the corresponding period last year. Estimated domestic consumption for this same period was about 83,000 head per week.

Stocks of pork in storage in Canada at July 1 totalled only 32 million pounds, compared with 37 million pounds at the same date last year. Similarly, stocks in the U.S. were slightly lower than a year ago, with a total of 220 million pounds at July 1, compared with 254 million pounds last year. In 1953, Canadian weekly gradings during the eight weeks in August and September averaged 71,326 hogs. Allowing for a small increase, current marketings, plus storage stocks (about 200,000 hogs at August 1) could equal at least 100,000 per week. All of the pork in storage should be drawn out by October 1.

Prices moved up sharply around the first of June, to a top of \$39.50 for Grade A in Toronto; at Chicago they showed a surprising strength in early May, with some sales up to \$28.65 (live weight). During the week of June 19, however, they dropped as low as \$23.50, and by July 31 were as low as \$22.75. Canadian pork cuts, either fresh or cured, have to be sold on the domestic market, or moved into export outlets, and the price must
(Please turn to page 42)

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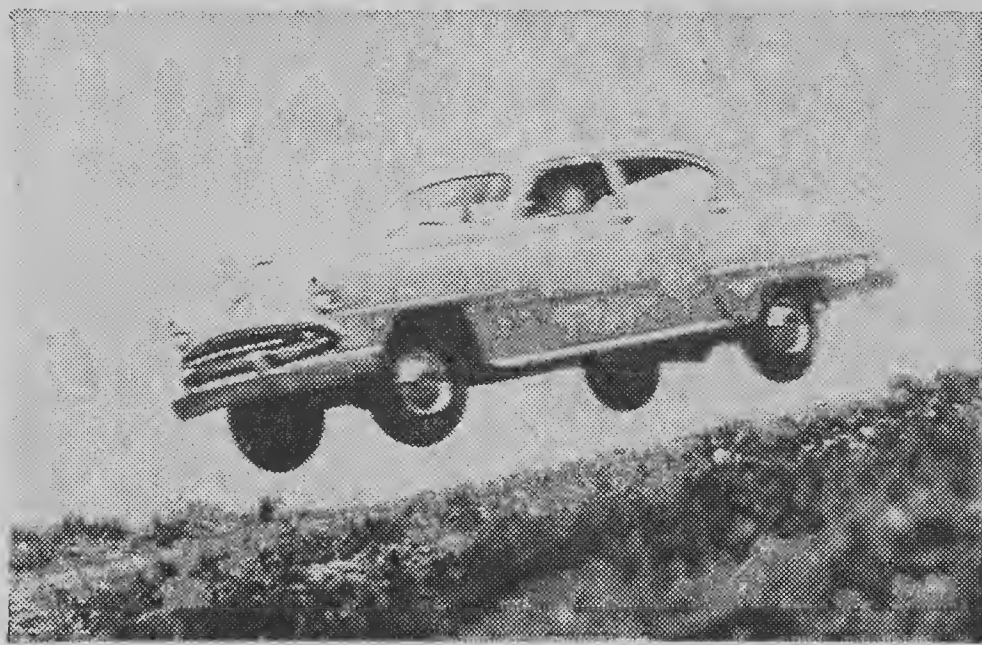
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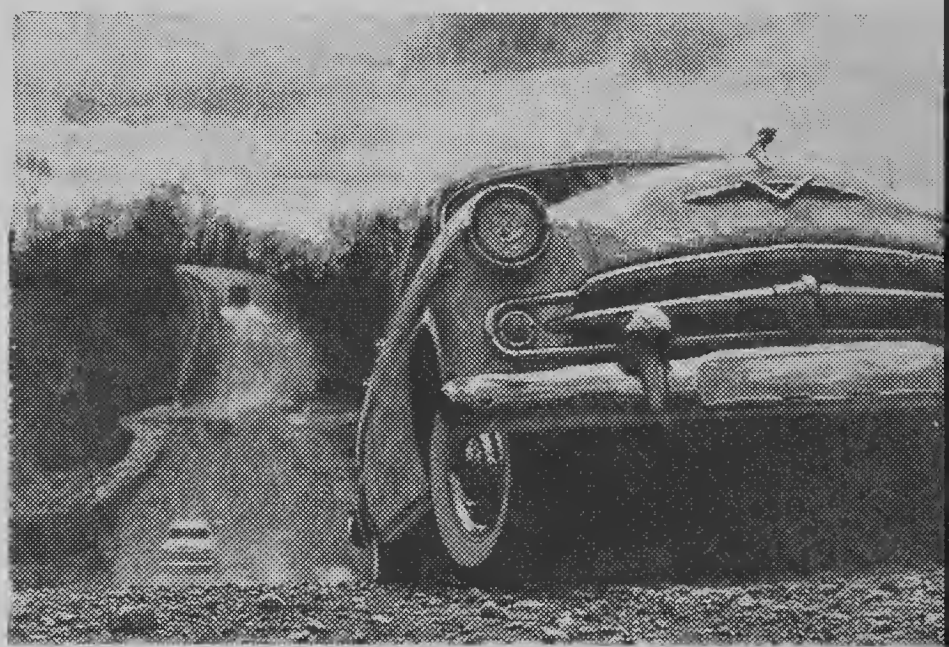
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adjust itself until the product moves freely into one or both of these channels. When all the available product wouldn't do this at the higher price levels, the Toronto price dropped back to \$33.50 for Grade A by the week of July 10, and then to about \$28.50 by the first week in August. Relatively heavy weekly gradings from storage stocks, and a lower price in the United States, forced prices down on Canadian markets, so that any surplus over domestic requirements must move into export channels.

Pork product exports (including 21,124 live hogs) in 1953, amounted to the equivalent of about 571,000 hogs, or 11.4 per cent of our total gradings. It is forecast that increased stocks for the last quarter of 1954 will range from 25 per cent to 42 per cent, and that domestic consumption will be something less than 100,000 hogs per week. This means a considerable pork surplus for export during the fall months. However, the U.S. trade emphasizes that pork supplies there will not be excessive this fall, as compared with recent years. A considerable quantity of live hogs will be shipped from Alberta, and some may move out of Ontario, but

the bulk of the export is expected to be in the form of cuts, particularly hams, backs, and bellies.

SINCE 1939 our general livestock picture has been one of change. An increase of 100 per cent in freight rates and loss of the United Kingdom market, have been balanced in some degree by a big increase in domestic consumption. In that time our population has increased by nearly four million. British Columbia, in particular, has shown a population rise of 55.3 per cent. At 1953 consumption rates, this means an additional 7,500 cattle weekly out of inspected kill and about 24,000 hogs per week out of gradings. The movement of surplus livestock and meats has done a turn-about from east to west. In the western United States the outlet for Canadian livestock is becoming an increasingly important factor. Practically all of the 12 states are deficient in hog products, while the Pacific Coast states of Washington, Oregon, and California are a net deficiency area for all livestock. It's encouraging to note it is a much shorter haul from Alberta to the main centers of these states, than from the principal markets in the U.S. Mid-West. V

Auction Selling at Winnipeg Stockyards

The auction method is operating smoothly in yards farther west like Calgary. Now Winnipeg is trying it

RANCHERS and farmers selling stocker and feeder cattle through the Union Stock Yards at St. Boniface, Manitoba, can now watch their cattle enter the sales ring, listen to the call of the auctioneer for higher bids and see the sale completed and settlement made. The auction method of selling is now in full force at St. Boniface, which is said to be the largest stockyards in the British Commonwealth, and the first major market to initiate the system.

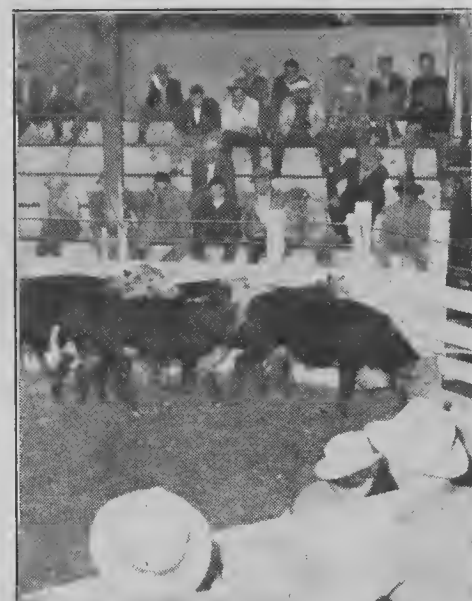
It's only on trial yet, but many of those working around the yards think it's just what they need to maintain the confidence of cattlemen in the public markets. The sales ring was opened officially in mid-August by Manitoba's Minister of Agriculture, Hon. R. D. Robertson; and after only a few days, commission men agreed that prices were slightly above what they might have expected under the long practised system of selling in the alleys.

Elia Trepel, president of both the Winnipeg and Canadian Livestock Exchanges, said the exchange had followed the same system of selling livestock for 40 years, and there was no doubt in his mind, and more particularly in the minds of the younger generation, that changes are needed. The changes have now started, and in three or four months, if they prove popular and worthwhile, the new facilities will be expanded to take in all classes of cattle. To be sure the system gets a fair trial, stockyards regulations require that all stockers and feeders going through the yards, go through the sale ring, unless the consignor specifically asks his commission agent to sell them privately. However, if the cattle do not bring a satisfactory bid, the agent can bid in the animals, and

either bring them back later, or attempt to sell them privately.

In addressing the large group that turned out for the opening ceremonies, Mr. Trepel said it was the first time that auction selling had been tried on a big market for many years, and suggested that the Toronto, Montreal, Chicago and South St. Paul markets and others were watching closely.

One reason, of course, for introducing the new system which has been successfully established in other western markets is undoubtedly the mounting interest among farm groups, in improved livestock marketing. In opening the sale, Mr. Robertson said that producers, particularly the small ones, have doubts about receiving their full cash returns under the older system of selling. Now, cattle producers can watch their cattle change hands. V

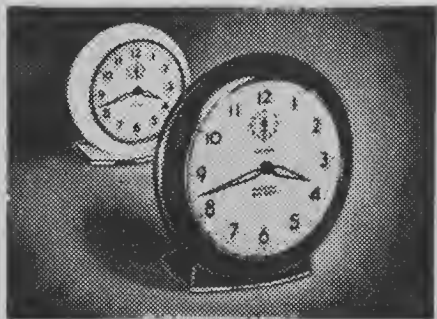


A load of light cattle go through the St. Boniface auction ring (auctioneers in the foreground).

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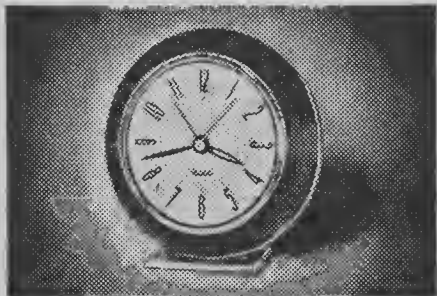
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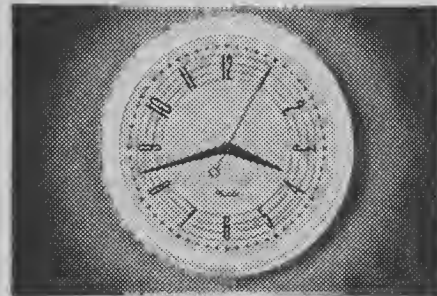


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Saga of a Strange Valley

Continued from page 12

night was full of sound—of waters trickling, of ice-cakes grinding against the river bend, a late squirrel churring . . .

THE Athabasca moon was setting when I awakened. The fire was dead; the morning air was very cold. The familiar taste of burning forest was in my mouth, but something else had awakened me. *The wind.* A high spring gale tossed the creaking spruce tops. That meant it was blowing down the gorge—had switched from west to north. Counting out miracles, the flames in the timber had turned: the fire must be racing south, toward the cabin and my one exit from the valley.

In the dim light of dawn, I saw how badly I had misjudged the distance the fire was from my cabin the day before. Already, it had rolled down the horseshoe neck; and, in two great canopies of smoke and flame, was parting. Two arms of it were reaching along each side of the horseshoe, while the third was driving straight west out of the horseshoe neck — wind-driven toward me.

From my watching spot on an open flat, I saw an island of spruce ignite like a kerosene dump: the fire, sluicing over the waxy needles, literally exploded in a mushroom cloud of flame and smoke. The pattern of color was deceptively pretty. The noise was not. I could hear the fearsome *whroash* from afar, as flames ripped over other grassy flats. Within half-an-hour, there was no sun, no sky, left—just an incredible curtain-wall of smoke; a fire-tinted shroud between earth and heaven.

Even as I stood there, unbelieving, a herd of muleys broke from a willow gulch. Gaining on them was a scrawny cinnamon bear, running and darting through them, like a ballet dancer. Quite suddenly I found myself running, too . . . past furs and night-bed and three miles beyond that, to a high damp sandbar on the southwestern curve of the river.

Surely, I thought, a man couldn't be trapped behind that fire. It was just too silly. But I had passed under those frozen cutbanks too often to really think there was a way up them. More important, the animals knew. Even as I stood there, a big moose joined the deer herd, his blunt, black nose snorting against the wind.

The buck began testing the sandbar. The herd crowded behind—but those freezing waters would have numbed me inside two minutes, even if the current hadn't swept me off my feet. The deer swam almost upstream, finally gaining the other bank-wall at a point almost opposite me. But they couldn't even get a foothold on the sandy cutbanks. Finally they turned back and hopped into the alders again, probably to try another crossing.

I sat down and tried to think. My problem was simple—to keep from being roasted alive.

After half an hour, I thought I knew the answer. It seemed so absurdly simple, I wondered why I hadn't thought of it before. The fire would take more than a day yet to burn out that great basin. In the interval, all I

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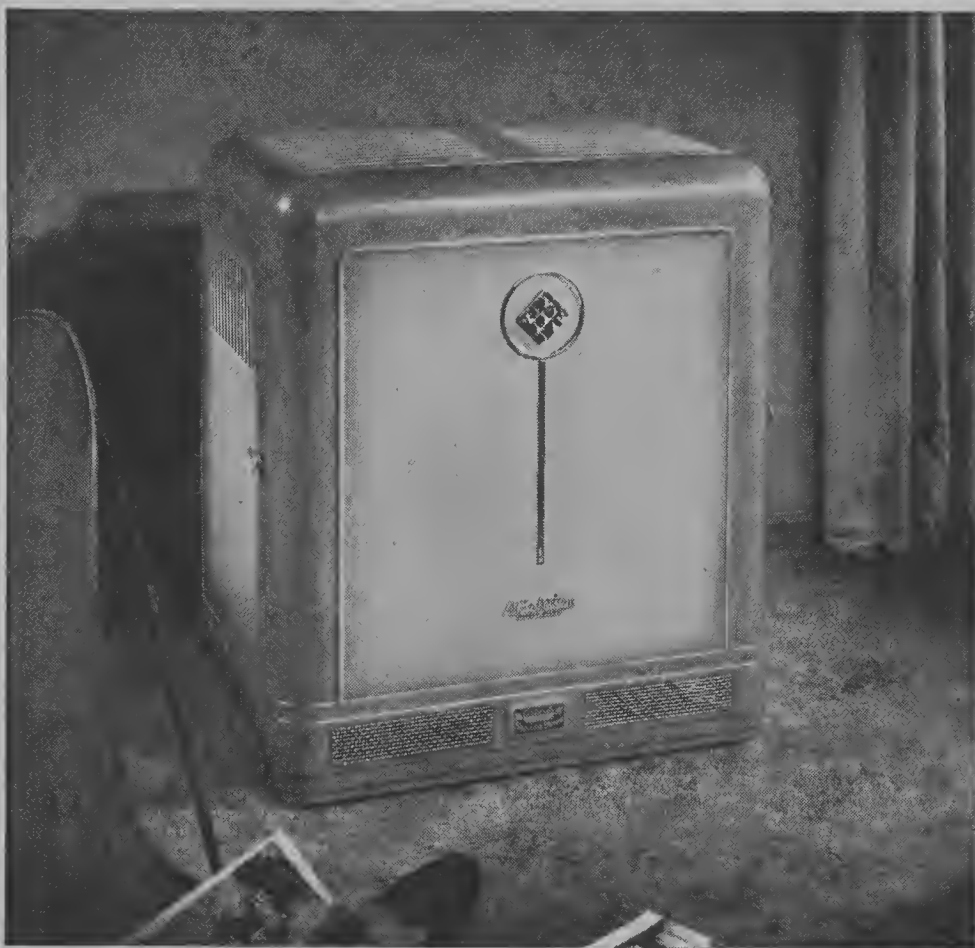
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had to do was burn back a stretch from the river.

I went back a hundred yards and applied my lighter. It seemed incredible that I couldn't get the grass to catch. It burned down to the wet ground and flickered out, leaving only circles of grey-black ash. The green alders and willows wouldn't catch at all, though once that furnace blast from the east swept through, they'd twist and scream as the heat roasted the frost out of them. I'd seen small bush fires, close up, before.

Still, it was the best I could do. All day I lit patches of fire, not cold, not hungry—till by night there was a long stretch in which all of the highly combustible growth was gone. If a forest fire could be confined to within two feet of the ground, it would soon go out. Trouble is, it feeds on the tall dry tops, with the wind as a bellows behind it. I quit when my lighter fuel was gone and no amount of snapping would coax the smouldering wick into flame. My last little slope of dried rose-briers flared up, squeaked like wounded things, and fell into soft ashes. Then the spring blackness was around me, depressing.

I climbed the slopes—with the futile hope that I might get to a pinnacle high enough to escape the inferno: but even if I had, I knew the heat would have smothered me—for a "clear" look to the east. The fire had worked full half-way up the horseshoe. The roar of it was like a twister now. Every time it hit new jackpine and spruce, the night sky ignited and vomited, as if some giant was throwing sheets of napalm into the night.

I lay on the sandbar, scooping out a depression from the still-frozen sands, figuring I could shelter there when the flames approached my fire-guard. In the tinted sheen of the night, I saw other animals joining me. Squirrels and weasels, tails flattened, scampered right past me. A pair of foxes kept trotting back and forth—back and forth—thinking desperately. A bear, my pal of the morning probably, bumbled down the bank and plunged into the icy river. He seemed to be sucked out of sight.

DAWN came, and the sandbar was cold. I knew the climax was near, for the rabbits were padding in a straight run across my fireguard. Without hesitation, they leaped into the water. Only their heads were visible as they swam. In wonder, I watched them climb from the water and hump slowly along the ridge of loose sand that always piles up at the bottom of cutbanks. *They escaped.*

The foxes tried the same tactics, but the sand would not support them. But suddenly I sensed they had figured out their survival, too. They kept stepping from the sandbar into the river, swimming skilfully to avoid the ice floes. When the cold got too much, they came ashore and shook their fluffed fur. They'd stay in the water when the heat got unbearable—and they'd live.

Minutes later, the first living brands began dropping on the water. I got to my feet, to peer above the alder bank, and warm ashes, like powdered snow, touched my face. I felt suddenly dizzy. I wondered if it was fright, fatigue, or simply lack of oxygen.

In another hour, the noise was beyond description, the heat was already toasting. I kept slapping a wet handkerchief to my face, breathing slowly

of the good, cold air. For the first time, the conviction that a man couldn't be burned alive in a forest fire was leaving me.

That fire was travelling probably ten miles an hour, certainly a lot faster than a man could run. I looked over the alder bank for the last time—in time to see the value of my fireguard. An atomic cloud of greasy, black smoke rolled right over the burnt-out area. I could literally taste the green wood, as the cloud suddenly ripped into sheet-lightning flame and the willow tips disappeared.

Then the real heatwave hit me. Parboiling. Suffocating.

Without reason, without conscious thought, I went close to the river's edge. An ice-flow, as big as a living-room floor, was bearing down on me. I watched it stupidly, watched it hit my bank, roll, straighten out for the downriver drive again. And when it was ten feet past me, I almost went berserk. *Get on it — I thought — catch it — get on it!*

In animal panic, I tore down the bank, plunged into the heaving water, trying to get on the big floe. It was too late. It was pulling away from me. My feet slipped on the icy bottom, and I flailed upright again—to see another floe, even larger, bearing down



"It's an unfortunate birthmark."

on me. My body seemed leaden as I sloshed toward the bank—to get out of its way: it would have smashed the main pier of a wooden bridge. When it ground against the bank, I stepped onto it and fell flat on the greasy, watery surface.

No human could ride a raft down the jagged rock-bottom of the Athabasca. But in spring, those rocks are buried under fourteen feet of boring water. The great floe slipped faster—down into the choking belt of blue smoke. A flaming spruce toppled into the river. My ice-raft pushed it aside as if it had been a toothpick.

In ten minutes, perhaps, the great berg was past the fire-belt, driving toward the sheer clay wall that marked almost the exact mathematical center of the horseshoe. It struck, throwing me violently against the cutbank side, then back onto the iceberg. For a moment we seemed suspended; then the front half of the cake moved off by itself. My piece bore toward the center again and a bend that turned, this time, more to the north. It piled up on shore, rose on its end, throwing me fifteen feet onto fire-blackened land.

Old logs still smoked. Fire-blackened spruce still stood. I emptied the water

out of my boots, wrung out my socks. I was walking more than half an hour when my feet began to "feel" again. Hours later, caked with dirty ashes of the desolation, I was climbing the long neck that led to the uplands. And suddenly there was snow on my face—wet blobs blown from the dome of the dull April day.

THE cabin lay in powdery ruins—a rusted stove, a few roasted pelts left of a long labor.

I stared at it, my mind stirring heavily with memories.

There I had snowshoed back over four-foot drifts—to stoke the fire . . . drink scalding coffee . . . light my lamp . . . look at my furs. Home! A place to be with oneself, in peace, while snows whip out of the night—a place to work and a place to dream.

How many times had I touched the pelts on the walls, before blowing out the smoking coal-oil lamp for the night? How often I'd taken down a mink or fox, seeing again the place and the way I'd nabbed it. . . . Even the aroma, like spilled lighter fluid, belonged in the corner where the glistening ermine pelts were piled.

Most of all, I remembered the rare fisher pelt that had hung at the foot of my bunk. I'd got him on Christmas Day, an old thirty-pounder feeding on fresh-killed porcupine. I could still taste that day: the sun-dogs hanging, like colored crests, above the gaunt southern hills; so cold the bolt would hardly push into place on the rifle. Getting him was like—well, something like getting a Christmas present from my valley.

Empty-handed — and strangely empty-headed — I turned eastward for Shorty Hill's. Exhaustion was crowding me. When I stumbled, I wanted to lie. Another part of my mind seemed to take over, bidding me rise and guiding my steps.

I have a confused memory of the deep dusk; then of Shorty, standing incredulously in his underwear, the coal-oil lamp screwed low behind him. In my ears I could still hear the crash of flaming timbers; I could see the sky spewing forth its flames, and frightened fugitives running from the long, red night. Still later, I remember being on Shorty's bed, feeling sleep surging at me in long deep waves.

Shorty's voice droned on, as he stood at the window, watching the fire that had, somehow, leaped the river and was racing on to the south. Nothing mattered too much now, except that I was here. And I was alive.

Some day new life would come to the Horseshoe, borne by wind and water. And then, this would all be a memory—one saga of many that trappers remember, when snows sift down from the winter's sun and sun-dogs hang in the sky.

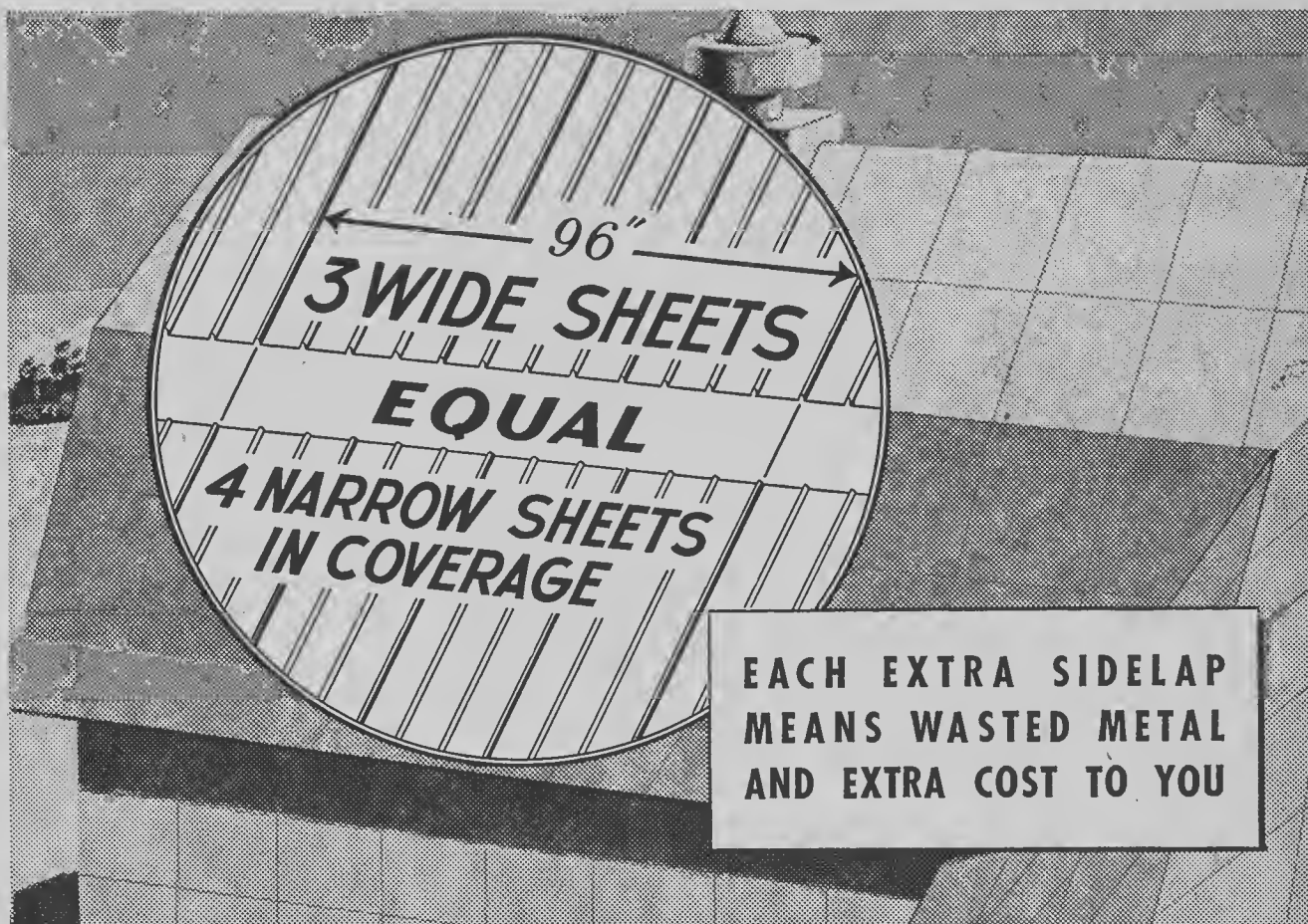


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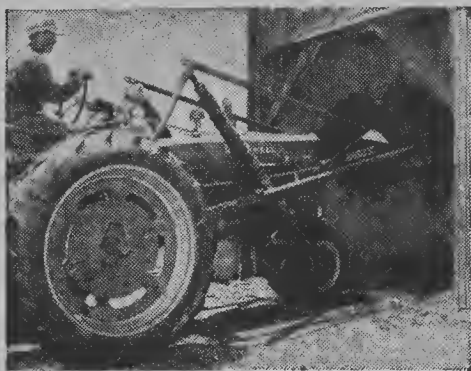
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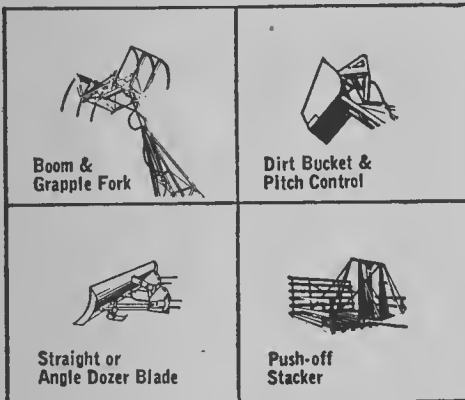
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Fertilizers and Plant Food Costs

Higher minimum plant food standards would save money for farmers who buy fertilizers

SINCE the war ended, the cost of fertilizers has increased substantially, along with all other costs; and farmers have been able, so far, to gradually increase their use of fertilizers, only because the returns from wheat and coarse grains have remained relatively high. The long series of good to excellent crop seasons has meant, also, a continuing, favorable moisture supply for the most part. This, too, has increased the efficiency of the fertilizers applied in western Canada.

In the purchase of fertilizers prairie farmers require nitrogen and phosphorus, principally. In other parts of Canada, soils are deficient in potash and some minor plant foods. Prairie farmers very seldom apply fertilizers to grain crops at rates higher than 50 to 75 pounds per acre, whereas highly specialized potato growers, for example, may apply as much as 2,000 pounds per acre.

Unfortunately, as with many products entering into consumption, the final purchaser is not required to pay merely for the actual product he is in need of. Whatever the formula used, no commercial fertilizer is pure plant food. The Canada Fertilizer Act provides that commercial fertilizers sold in Canada must contain a minimum of 20 per cent of plant food. The various provincial fertilizer boards now have agreed, with some minor reservations, that this act should be changed and the percentage raised to 24 per cent. The Ontario Department of Agriculture said recently that, in 1933, the fertilizers used in that province averaged 19 per cent of plant food. By 1942, this average had been raised to 21 per cent, and by 1953, to 26.8 per cent. The proposal to raise the minimum percentage was suggested originally by the Plant Food Producers' Association, and farmers everywhere will welcome the change, because it means that they would not have to pay for the bags, transportation and labor involved in handling as much inert and useless matter.

There are good reasons why the plant food content of most fertilizers is not higher than it is. For some crops on some soils, high-content fertilizers are not wanted. Other fertilizers would

be too expensive to produce, while with still others it would be difficult to produce a stable fertilizer that would keep well and hold its strength.

The future will undoubtedly see more and more commercial fertilizers used in this country. With this in mind, the higher the minimum plant food requirements that can be made safely, the better it will be for farmers generally. V

They Study Wild Life

by P. W. LUCE

THE University of British Columbia is the only institution of higher learning in Canada that has a course devoted to the conservation of wild life. Crafty, elusive, and sometimes dangerous, these denizens of the remote spaces are nevertheless an asset worth millions of dollars, directly and indirectly. Their continued existence is now recognized as an economic asset.

Much of the rugged country of British Columbia is fit only for wild game, as the few settlers who try to wrest an agricultural living from the barren acres eventually find out. Guides, fur traders, bounty seekers, resort operators, outfitters, government agents, and many others are to a large extent dependent on returns from big game for their main source of revenue. Scientists, sporting goods manufacturers, and transportation companies, also get a good deal of cash from the same source.

University training in wild life protection started in a small way in 1940, under the direction of Dr. Ian McTaggart Cowan, professor of zoology, who has spent a lifetime of study in the subject.

The original purpose was to ascertain the limit to which big game could be hunted and trapped without seriously endangering the source of supply, but the course has been greatly increased since those early days. Such subjects as biology of the vertebrates and invertebrates, sylvics, wild life biology, conservation, botany, embryology, histology, and experimental zoology are now included.

British Columbia boasts 11 of the big game species of the continent, including grizzly and other bears, moose, cougar, caribou, mountain goat, mountain sheep, and deer. V

Everyone Talks, No One Does Anything!

Food surpluses provide a very complicated problem, for which no one seems to have a satisfactory solution

by JOHN ANDERSON

IT WAS about the weather that Mark Twain said, "Everybody talks about it but nobody ever does anything about it;" and now almost everybody is talking about surpluses.

The U.N. Food and Agriculture Organization—through a special working party that met in Washington last March, through its regular Committee on Commodity Problems, and through a new consultative sub-committee just established—is a natural center for much of the talking. Nevertheless, the other U.N. agencies dealing with trade, eco-

nomics, or human welfare, and certain inter-governmental bodies such as OEEC (Organization for European Economic Co-operation), and the U.S.-Canadian Committee on Trade and Economic Affairs have also had their say. Nor must we forget the IFAP whose recent Kenya meeting was virtually dominated by discussions of surpluses.

From all these sources, reports, observations and recommendations flow in, creating something of a disposal problem in themselves. Now, to add



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The U.S. Department of Agriculture recommends this lye-lime white-wash:

Dissolve 1 lb. of lye in 5½ gallons of water. To this solution add 2½ lbs. water slaked (not air-slaked) lime. Apply as ordinary white-wash.

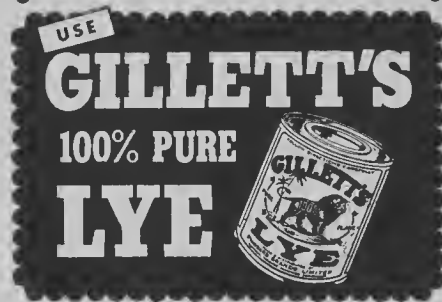
This whitewash both improves appearance of farm buildings and also acts as a long-lasting disinfectant—the action of the lime actually prolonging the disinfectant properties of the lye.

DISINFECTANT AGAINST MITES

The following mite disinfectant is highly effective and also inexpensive to prepare:

Dissolve 1½ lbs. of lye in as small a quantity of water as possible. Allow to cool. Put 3 quarts of raw linseed oil into 5-gallon stone crock. Pour in the lye solution very slowly. Keep stirring until a smooth, liquid soap is produced. Then gradually add 2 gallons crude carbolic acid or commercial creosol. Stir until resulting fluid is clear dark brown. Use 2-3 tablespoons of the mixture to a gallon of water as a spray.

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to the literature of the subject, there is a new study on the economics of surpluses published by FAO, "Disposal of Agricultural Surpluses" by Gerda Blau.

This study, which has the merit of being almost entirely impartial (and therefore not very encouraging), defines what constitutes a surplus. (It must be remembered that Canada has no surplus problem, the official view being that we are simply holding some large stocks against a succession of rainy days.) The study also sets out just what a surplus-holding country may do with its stocks other than burn them.

The country may, for instance, store these stocks under a variety of different names, such as stabilization stocks, strategic reserves, or emergency reserves. These different names help to create the impression that the country concerned does not mind having to hold the large stocks in question. Or it can dispose of them by special means.

The special means may consist of price reductions to all comers, or else to foreign buyers only, or to special groups such as school children (for school lunch programs), hospital patients, poor or starving people, and so on. Or the special means may consist of action designed to sell the stocks at their normal price, by increasing the demand for them.

Increasing demand without lowering prices may be done by educational and publicity programs ("... is good for you! Eat more ...!", with the blanks filled according to the current surplus), by the development of new uses (e.g., surplus skim-milk powder used in enriching bread), by legislation (e.g., setting maximum extraction rates for flour milling), by discouraging competing commodities through taxation, import restrictions, or through special laws, or by improving distribution facilities for the surplus commodity.

THIS taken slowly, is all straightforward enough, but the drawback with most of these "special means" is that they have to be kept up for as long as production remains at a high level, and they do not go far enough toward bringing the commodity trade back to the normal economic situation where supply is roughly balanced by demand. Therefore, much attention has been turned toward an alternative that is well favored by the international welfare organizations. This alternative is to increase demand (without lowering prices) not by publicity, legislation, and so on, but by raising the purchasing power of would-be consumers.

Now, one thing that the recent talking has produced is a set of principles, which it is thought should govern dealings concerning surpluses. There has been a remarkable degree of agreement amongst countries—exporting, importing, rich countries and poor countries—on these principles; and it is only a pity that the same spirit of accord does not always prevail when an actual trading agreement is under discussion.

It is agreed, for example, that stocks should not be destroyed (after all, by modern nutritional standards more than half the world's population are undernourished); and therefore, it

logically follows from this that even restrictions on present production are not to be desired. There is also agreement to the effect that producers' incomes should not be lowered, unless we are prepared to run the risk of another world depression. Further, it is undesirable even that existing patterns of trade be in any way altered (Danish and other European dairy farmers live in constant fear that the market is suddenly going to be flooded with surplus U.S. butter).

The most-favored idea, then, the one that fits into normal economic tendencies and need not fall foul of any of the principles above, is the one where demand is increased by raising the purchasing power of would-be consumers. In practice, this means that backward countries must be developed economically and made richer, so that their peoples may become new customers for the commodities now in surplus.

This, however, is obviously a long-term measure. To bridge the gap between present surpluses and future increased demand, there comes the further suggestion that the present surpluses might be given, or sold on long credit, to the backward countries, who in turn sell the commodities to their own peoples and use the proceeds of the sales to finance new development programs. These, in turn, would ultimately earn the countries additional foreign exchange to buy more of the surplus items.

NOW we have a really attractive chain-reaction idea, but unfortunately the FAO study strikes a warning note. If, it says, a backward country sells the free or easy-terms commodities to its people, existing trade is bound to be affected in some way, however small. If the people buy surplus wheat, shall we say, they will probably not buy as much rice as they did before, and this interference with existing trade is contrary to the principles generally agreed on. If, to avoid this, the backward country gives the imported commodity away to people who are too poor to buy anything anyway (i.e., to the only type of entirely "new" consumers likely to be found), it will then raise no money to carry out the development program, which is an essential part of the scheme.

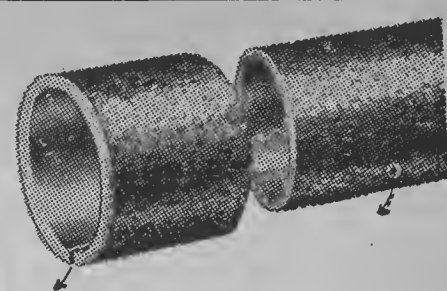
Thus some of the gilt comes off the gingerbread. It still leaves the possibility of development projects for backward areas, financed by other means, as an ultimate way of easing the surplus situation, but it does nothing about present over-large stocks. In the general discussions that have taken place, it has been suggested that pending the eventual maturing of long-term plans developed internationally, individual countries should do what they can about their own surplus stocks by taking special short-term measures. But what are the most effective short-term measures?—production restrictions (already seen to be undesirable on humanitarian grounds)?; reduced selling prices (which are ultimately certain to reduce the producer's purchasing power)?; or free gifts (which will probably affect established trade)?

Mark Twain would have made the most of this situation. Perhaps the time has come to do something about the weather.

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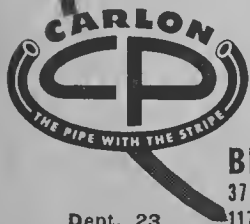
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Poultry Meat Revolution

Continued from page 11

a few of the earlier growers had already made. Before many of them had their first crop of birds ready, the market was glutted and the expected profits turned to disheartening losses. Some were discouraged and quit the business, while others stayed with it, hoping to recoup their losses. Recurring periods of profitable and non-profitable prices were unable to stop a swift, though uneven growth. It was a similar pattern to the industry's earlier growth in the United States.

With mass-production methods, hardly imagined efficiencies have been achieved to cut costs and increase profits, which, on a per-unit basis, are necessarily small. For example, a year ago, a professor from Purdue University, Indiana, speaking to poultrymen at Guelph, Ontario, called "a pound of broiler for a minute's work" a good goal to aim at. Already, in Waterloo county, Ontario, one huge broiler plant, financed by businessmen and housing 50,000 birds at once, has cut that time by two-thirds, turning out a pound of broiler with only 20 seconds' work. One man, with a little help at busy periods, looks after all of these birds, and says he is not overworked.

Now it appears that the prairie provinces are on the verge of a big expansion in broiler consumption. Many prairie housewives have already gained the habit of buying broilers, many of them as a result of the persuasive powers of former Winnipeg policeman, R. H. Dunn. Mr. Dunn quit the police force a dozen years ago, and invested his modest savings in equipment to produce broilers. Restaurants and chain stores took his birds, his business mushroomed, and by 1952, he decided he wanted final proof that the birds he was selling at a premium under his own brand name were just about the best in Canada. That fall, he selected a few well-fattened chicken carcasses, dressed them and shipped them to the Royal Winter Fair in Toronto, and saw them take the top three prizes.

Now he is pushing his operations into Alberta, confident that booming province offers the next big market for broilers.

IN the Winnipeg district, one of the large meat packing houses has begun to handle broilers in volume

for the first time, and has built a plant to raise some of its own birds. Another of the packers has been handling a few broilers for several years, but is now expanding to meet the demand for fryer chicken, which they are sure is waiting. Unable to get sufficient birds here in the West, they are importing birds from the East to meet the demand.

In spite of the shortage of birds on the prairies, those who have already tried to grow them have not always found them profitable. For example, C. G. Penner at Lorette has put through eight bunches during the past two years. Without a heavy investment in equipment, he says there is too much work for the returns they bring, and with groups of 1,500 to 1,850 birds each time, profits have been too small. This summer, to see if he could earn more money, he kept the birds right in the pens, past broiler weight, intending to sell them as roasters.

Another innovation is coming to the Winnipeg market. Turkey broilers are being killed by one packing house. These birds grow to the weight of roasting chickens in a much shorter time, and with much less feed, than chickens, gaining a pound of weight with as little as three pounds of feed. Comparatively, capons require well over five pounds of feed for each pound of finished weight. However, turkeys have not yet achieved the place, either in the U.S. or eastern Canada, that is forecast for them by some. The reason is said to be the difficulty of putting a good finish on the young toms at 15 weeks. Half of them are said to lack sufficient fat.

Big news now, though, is in the way housewives are buying chicken broilers, eviscerated and sold whole, or cut up and sold by the piece. The Canada Department of Agriculture confidently predicts, in the Current Review of Agricultural Conditions, that broiler production will continue to increase, but makes no guess as to the effect this will have on farm flocks.

With so big an investment required to make a suitable profit from broiler production, and with so much technical knowledge required to raise thousands of birds successfully in close confinement, it is obviously a job for the specialist. It requires a high degree of skill, plus solid financial backing to weather the storms which brew so often in the turbulent industry.

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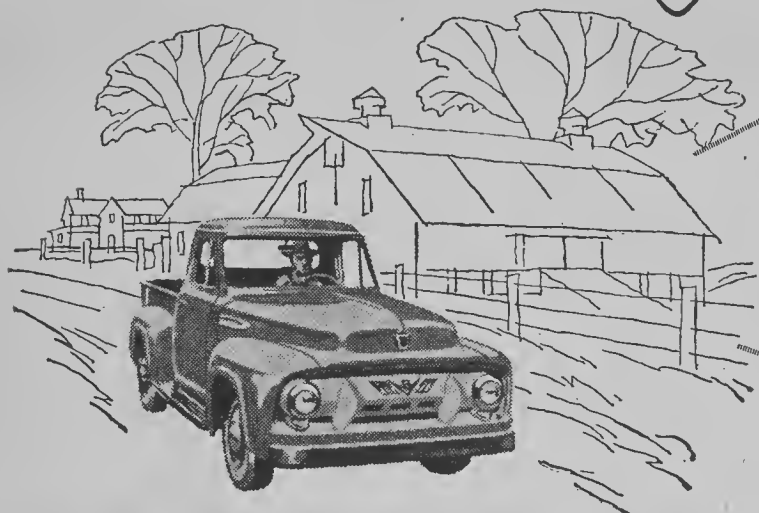
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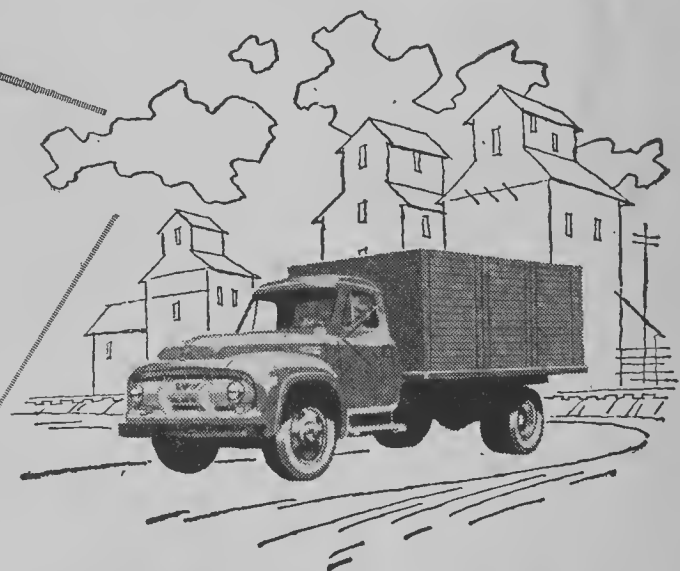
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Tom Lokier during the early ranching days, on the banks of the South Saskatchewan River.

Pioneer Rancher

Continued from page 7

piece of land in the Brooks area, where he runs about 200 head of Angus steers. Both have made good use of the skills acquired in their early years on the ranges of the South Saskatchewan.

Competition was keen for Alberta's range lands in pioneer ranching days. From as far south as Texas, American cattlemen had followed the free grass up into Canada with their herds. Most of these outfits came into this country for one reason — exploitation. They would tie up large acreages of land under lease and never pay for it. In dry years legitimate ranchers found it pretty hard to get any extra grazing.

LOKIER and Murphy soon found their 1,600-head herd more of a liability than an asset. It was taking about 40 acres to feed one animal which meant that their 26,000 acres wasn't even half enough.

"We had no experimental farm service to guide us," Lokier pointed out. "Range carrying capacity was something you had to find out by trial and error."

But Tom had been a dirt farmer before he was a rancher. If there wasn't enough natural forage for their stock he figured they'd better get busy and grow some. The best forage he knew was alfalfa. In 1903 he seeded down a couple of sections in what he believes was the first alfalfa planting in Alberta. He used three varieties: two of them winter-killed that first year, but the third (a variegated alfalfa) took hold and spread.

Two years after that first alfalfa planting a serious mange epidemic threatened the whole ranching country. The government immediately ordered a clean-up of all herds from the Rocky Mountains to Swift Current. No cattle could be shipped until they had been cleared by federal inspectors.

To meet this emergency, ranchers in the Medicine Hat area rigged up a decontamination station that could handle 3,000 cattle a day. One by one their animals were driven through.

The plant consisted of two large corrals connected by a deep trough, the latter about 100 feet in length. This was filled with a lime and sulphur cleansing solution, kept at the proper temperature by a coal-fired boiler located at one side of the trough. Cattle were then driven from

the marshalling corral into the big vat and forced to swim to the exit corral on the other side. During this trip they were submerged for three minutes.

Most expensive part of the whole operation was charging the vat. This came to about \$700. Every animal that passed through, cost the ranchers another gallon of solution to keep the mixture up to strength.

"You can still find old mange-cure cans—relics of 1905—kicking around many Alberta ranches today," Lokier chuckled.

The alfalfa stands were pretty well established by this time, but yields were a bit too spotty to solve the ranch's over-stocking problem. In 1906 nature took a hand by sending one of the severest winters on record. By springtime Lokier and Murphy had lost over 40 per cent of their herd. About half of all Alberta's cattle died that winter.

"Severe winters seemed to follow dry summers when there was little hay," Tom recalls. One of the big free-grassers from Texas paid toll to the tune of \$250,000.

THE hard life took its human toll too. In 1911, Lokier's partner died and their ranch holdings were divided to settle the estate. Tom's half contained the big bend of the river, and with it he got a name for his 13,000-acre spread—"River Bend Ranch." By 1913, the house and buildings were up on their new place and the family moved in.

One of their first jobs was to do something about the piece of bald prairie surrounding the new home. Over 1,100 trees and shrubs went into the shelterbelt, within the space of one year. Thirty years later, when the Lokiers gave up their ranch, tall spruce, cottonwood and poplars met over top of the 30-foot driveway and the house was almost obscured from view.

When he was settled at River Bend, Tom's thoughts turned again to his alfalfa. All that was limiting yield was lack of water. If he could pump from the river to the three or four sections of bottom land he had set aside for hay, his winter feeding troubles would be over. But first he would have to find a low-cost fuel for the pump engine, or the scheme wouldn't be practical.

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production costs had to be kept at rock bottom."

Gas seepage along the river bank gave the Lokiers a clue. A natural gas well right on the place would be the answer—if they could locate one. An enquiry to Ottawa brought a government geologist to the ranch to look things over.

After poking around a bit he indicated a spot near the river. "Your chances look good here," he said, "but it's a gamble whether you get a decent flow of gas."

The Lokiers took that gamble and won. After drilling through 800 feet of shale, they reached sandstone, and a steady flow of gas at 130 pounds to the square inch. A special gas-operated engine they had ordered was soon putting river water into their main irrigation ditch, at the rate of seven tons per minute.

Stacks of alfalfa hay, 25 feet high, became a regular part of the landscape at River Bend—dry years or wet. The Lokiers soon had all the winter feed they could use, and some for their neighbors as well.

That was 30 to 40 years ago. Today we hear that the federal and provincial governments will spend eight million dollars on irrigation projects in Southern Alberta this year; and that irrigated pastures, plus a system of rotational grazing can yield up to 800 pounds of beef per acre. Tom Lokier's methods of "trial and error" never came up with production like that, but today's ranching trends show that he was on the right track.

The new pasture ranching is a great thing for production, Tom agrees. It takes most of the risks out of the cattle game. But his tone is a bit wistful when he adds, "and most of the fun too." Biggest gain made by the cattle industry over the past 20 years, in his opinion, is the wonderful improvement in grade.

LOKIER'S long ranching career ended unexpectedly in 1943. While his son was overseas, Tom received notice from the federal government that his ranch lay in a 1,000-square-mile block which was to be used as a testing ground for chemical and bacteriological warfare.

"You are hereby required to quit, vacate, and deliver up possession . . ." the official edict read. Tom had to read it a couple of times before he realized that 40 years of hard work was to be poured down the drain.

There was a financial settlement, of course—after a bit of a court battle, it came close to being a fair value for the place, at then current prices, that is. What the ranch would have brought after the war is another matter again; and what it meant to those who had built it probably couldn't be reckoned in dollars at all. It's hard to set a cash value on a piece of one's life spanning over 40 years.

But the Lokiers and their neighbors took this blow in their stride, just as they had taken the mange, and the killing winter, back in 1906. Perhaps they wondered a little that a block of producing range was chosen in a country with millions of acres of wild land that would never produce at all.

"I guess it was necessary," Tom shrugs quietly, and he lets it go at that.

And at the time, it probably was. "Nothing matters but victory" was the slogan in those days, and the sinking of Allied ships had reached an all-time high. Tom talked the matter over with a group of his fellow ranchers and they decided to head for the West Coast to help turn out ships.

"We were all pretty handy with tools," he explains, "and if we were to get our boys home again, we figured we'd better put our hands to use."

There was a large gathering of friends at River Bend Ranch to see the Lokiers off. The last thing Tom

did was to harvest seed from the alfalfa which had been his baby since 1903.

At war's end, Lokier was able to retire from a job well done. Prized souvenir of his efforts is a framed photograph of a navy frigate, enscribed with the names of all the ships he worked on—many of his ships made names for themselves in the fighting later on. With the help of another ex-Alberta cowpuncher, he then built the smart stucco home he lives in today.

Instead of spending the rest of his retirement days sitting in a park, Tom

helped to make one. For some time a triangle of vacant land near his corner had offended his orderly nature, and one day he decided to do something about it. With the co-operation of Oak Bay's Municipal Engineer it was turned into an attractive rose garden at very little cost to the municipality. A good deal of this attractiveness is the product of Lokier's own hands. On his 85th birthday it was officially named "Lokier Garden"—somehow that compensates for the garden destroyed under army orders at River Bend in 1943.



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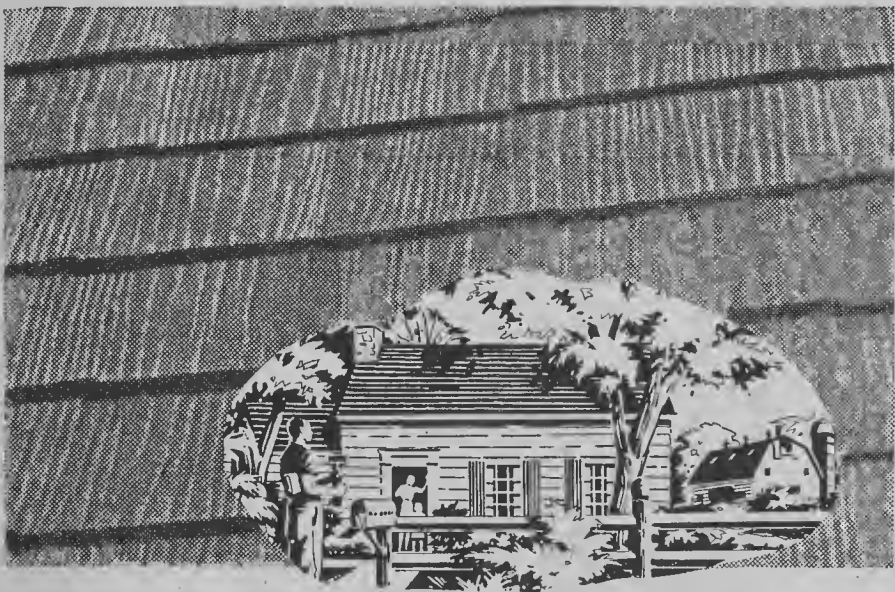
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JOHNS-MANVILLE BUILDING MATERIALS

The Deadfall

Continued from page 10

like the tang of the north wind outside.

To a stranger both Alan Royan and Loris Wilson would have stood out from the rest of the crowd in the store. The others were ordinary men—content with trapline and goldpan. But Royan and Wilson were of the type which has to be achieving something or be miserable.

On Ile Outarde, a big wooded island a mile out in the lake, Royan had a fox farm, where the freedom-loving animals could roam free in summertime and get full benefit of the north wind in winter. The farm, at first the joke of the trappers, was now the pride of Lac aux Cygnes Settlement—since that day a month ago when Royan came back from Winnipeg with certain momentous news.

As the newcomer closed the door behind him and peered through the haze of smoke, the whole room seemed to tense and stiffen. Sentences broke off in the middle. The laughing stopped. The trapper sitting beside Wilson sidled along the wall bench till he was protected by the stove. Three *metis* standing near the door edged off several steps, to be out of the path of possible danger.

Every man there knew what had occurred a month ago: of "Sour-luck" getting drunk, trying to make rough love to Margery Grantham, and getting a thrashing at the hands of her fiancé. Some of them had heard Wilson say what was going to happen when the two met again.

Wilson looked up and saw his enemy, but failed to draw. It did not suit his purpose to get himself hanged in order to wipe out the humiliation. There was another and a better way—the scheme he had been perfecting for the last month.

Royan must have felt the tautness, and known the reason, though he did not glance toward the stove. To the "howdy" of the trappers he nodded cordially, and shook hands with several he had not seen since fall. Before stepping to the middle of the room where Simon MacGillivray was, he slipped a hand into his jacket pocket, brought out an automatic revolver, and laid it down upon the counter.

"Heard you wanted to shoot me, Fontaine," he said to one of the *metis*. "I don't want to be shot and I don't want to have to shoot anybody. I'm putting my gun up so you'll have to start trouble leg to leg with bare fists. *Kuntux?*"

Fontaine grinned. He realized the words were meant for Wilson. The tension in the room broke; the talking and laughing started again. Royan handed a list of articles to MacGillivray and leaned against the counter.

"Carcajou" Jinks sat down on the bench near Wilson. Presently he observed to another trapper: "What's th' matter with Royan, Sam? Looks almighty glum 'bout something."

"He does that," Sam agreed. "Ain't talkin' or cuttin' up a-tall. Looks like his best girl told him to go to Guinea. I wonder what's come over him?"

They "wunnered" back and forth for a couple of minutes. To himself Wilson grinned. He too had noticed Royan's gloom, and of the whole roomful, he alone knew the reason.

Once more the door opened. Margery Grantham, daughter of the Indian agent at Lac aux Cygnes, came in on an errand. She was a girl of nineteen, slender, graceful and dangerously pretty. The biting north wind had reddened her cheeks, and her furs glistened with particles of wind-driven snow. Born and reared at Lac aux Cygnes Settlement, save for her years of school outside, she had developed self-reliance and a "mind of her own"—which showed in the sparkle of her eye and the imperious toss of her fox-fur capote.

There were several girls at the settlement, but to the trappers and prospectors thereabouts, Margery Grantham realized the ideal of young womanhood; hers was the one name that never was mentioned in their jesting talk with one another.

At her entrance the rough jokes, laughter and stories were bitten off abruptly; and the weather suddenly became a topic of grave importance. The young trappers straightened their vests and gallantly dragged off their beaver hats to her. The older men watched her with something like the faithful homage of Duke, the big leader of her four-pup team.

"Mr. MacGillivray," she spoke to the trader, but her words were meant for the other men, too—"I need someone to help me. Dad is east at Three Spurs laying down a quarantine. I just got word of sickness in the Chipe-wyan camp eleven miles west of here. I need someone to go with me to the camp and then come back here for medicine and supplies. My dog team is outside, ready."

Eyes turned toward Alan Royan. The silence itself was a question. Why on earth hadn't she asked him, her fiancé, to take her? And why didn't he speak up and claim the trip as his special privilege?

But Royan said not a word, and Margery Grantham was not even looking in his direction. The canny old Scot was the first to see that something had gone sadly agley between the two.

"Whae'll go wi' Miss Margery?" he asked, to break the questioning silence. "If he'll be missin' a few hours o' jabber here tonight, she'll be missin' Christmas Day itself, puir lassie."

At least a dozen men volunteered. She asked Carcajou Jinks to go with her and turned toward the door, drawing on her fur gauntlets. Royan started, as if to speak to her or follow her out, but checked himself and leaned against the counter, his face a picture of misery he could not hide.

Watching the whole play from behind the stove, Wilson chuckled softly to himself. The first half of his scheme already had carried. He had seen, when she drew on her gauntlets, that she no longer wore Alan Royan's ring.

THREE hours later Wilson was crouching in a juniper covert at the edge of the lake, a rifle-shot west of the tiny settlement. From time to time he rose and looked across to Ile Outarde. His moment had not yet come. A light still twinkled in a window of Royan's cabin.

During the Chipewyan Moon-of-Hardening-Ice and Hoar-Frost, Lac aux Cygnes had frozen solid to three feet and more, but the northwest wind had skirled the light dry fall of snow

off its bosom. Under the pale cold light of the stars and the thin slice of moon riding overhead, it lay before him like a Titan's dark-silvered mirror, silent and glistening. Through the stately spruces and the fluttering birches that fringed its shores, the wind whistled shrilly, rising for brief moments to the howl of a blizzard.

It was past eleven o'clock when the cabin window out in the lake was suddenly darkened. Wilson waited a quarter-hour longer, then rose, stretching his cramped, chilled limbs and stamping his feet. From its hiding-place in the junipers he lifted out a twelve-foot *komatik*, a narrow, flexible sled mounted on runners of hickory heart and fitted with two tan-colored sails—a leg o' mutton mainsail and a smaller spanker. It was rigged with lines for deft maneuvering. Its nose-

lead was worked by a swivel bar in front of the rider's seat. Its brake was an iron hook with needle-sharp point, which tore a deep line in the ice when the brake-lever was pushed down.

From mast to runners the *komatik* was Wilson's own handiwork—a craft of slim, graceful beauty and the speediest sled, by easy odds, that ever skimmed across Lac aux Cygnes.

Setting it to the ice and holding it lest it dance away from him, Wilson reached into the covert with his other hand and drew out a wire cage a couple of feet square and covered with gunny-sacking. He fastened this on the *komatik*, stepped on, took his seat, and unfurled the sail. The canvas bellied out, the sled glided from the shore, and darted like a great-winged bird for the western tip of Ile Outarde.

Eight years before, Loris Wilson and Alan Royan had been partners: running the same fur path in winter, following the same river drives two hundred miles south of them in spring, and threading the endless *bois forts* waterways in summer, hunting for pay color. Then something got into Royan's blood—a dissatisfaction with that purposeless, unsettled life; and their paths parted thereafter.

With an idea in his head and a determination not to waste any more precious years, Royan settled at Lac aux Cygnes and began the hazardous work of fur-farming. He had neither money, foxes nor experience. The beginning of his ranch was humble indeed—a wolf-proof chicken yard at the edge of the settlement, and a pair of flea-bitten crosses which Carcajou Jinks trapped alive and traded to him

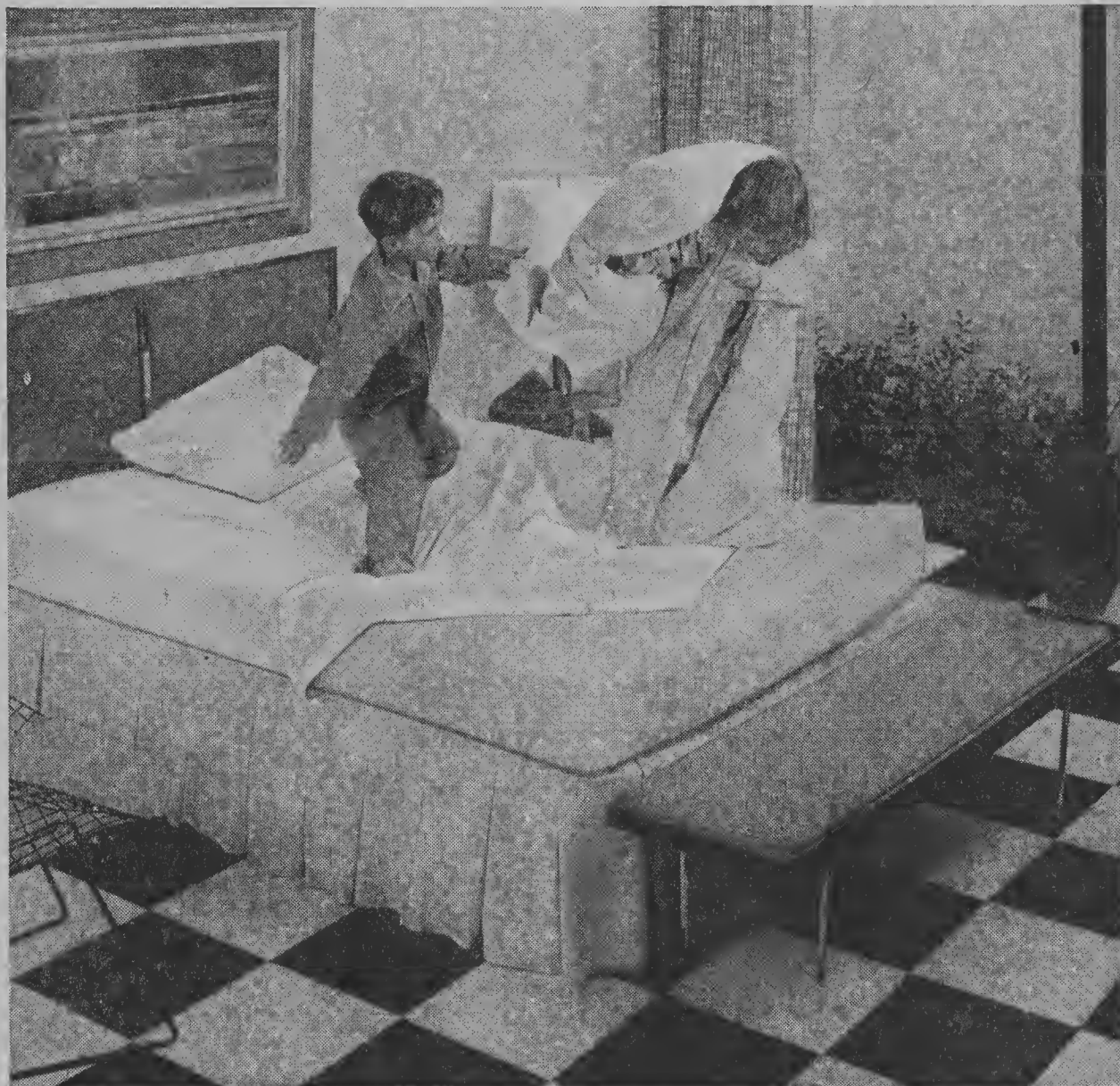
for a rifle. He had luck with their first litter. He dug out a den of patches that same spring, and in a year's time owned breeding stock to work with.

In methodical, scientific fashion, he set himself, then, to solve the problem of why "farmed" furs are usually so notably inferior to those caught wild. To his thinking the problem boiled down to range and food. He moved to the big wooded island out in the lake, where for seven months in the year his animals roamed through a natural habitat of brush and rocks and trees. When the lake froze and he had to close them, he built no cozy, felt-lined boxes, but let them burrow in the snow as their wild brethren did. The range question was settled!

Their food was a more difficult problem. For two years he experi-

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mented with a dozen different sorts, but failed to hit upon anything that made a marked improvement.

A bush-losing huckster, a man who traded from the Landing to the Circle and was a born wizard in matters of peltry, started him on the right path. Foxes that hung after wolf packs and ate nothing but meat, the trader asserted, had coarse pelts; but foxes from the rivers and lakes where there was little or no game but plenty of fish had fur that was glossy, fine and silken to the touch.

Royan tried feeding his foxes on fish. The results in two short months amazed him. He pushed the experi-

ment even further, trying different varieties of fish, till he discovered that a certain oily-fat, banded perch which swarmed at the mouths of the lake creeks, were better than trout or whitefish.

With range and food settled, he gave all his attention to breeding for good markings—an easy task already worked out by other men. He began to sell pairs of his pretty animals to fur-ranchers on the Outside. Among those who knew a splendid fox when they saw it, the animals from Lac aux Cygnes were a revelation. Prizes were won at several small exhibitions by the pairs which Royan had sold.

Orders, inquiries and flattering requests for information from the big ranches began to roll in on the monthly mails. "A Royan fox" began to mean something in fur-farming circles.

Then came the certain momentous event toward which Royan had pointed all his labors for three years. Saying nothing at Lac aux Cygnes, he slipped away one early November day with an innocent-looking box in his canoe, leaving his island ranch in charge of Carcajou Jinks.

When he returned weeks later, he released the astounding news that the peak and climax of all his work

and study—a magnificent pair of matched silvers—had been entered in the world fur exhibit at Winnipeg. They had won the International Grand Prize, and he had refused twenty-five thousand dollars for the "most beautiful pair of foxes on earth."

IT was this grand-prize pair that Wilson meant to steal that night. For many moons his jealousy of his former partner had been gnawing and cankering and slowly turning into intense dislike. Royan's marked coolness toward him, his refusal to keep on lending him money, his sharp language several times when Wilson had staged a drunken spree at the settlement, had fanned that dislike into an open, avowed enmity. Wilson's general bad temper had focused upon Royan in particular. The fight and the thrashing were the climax—the match to the powder of Wilson's hatred.

True to his sour-luck philosophy and his feeling that he was better than the men he rubbed elbows with, he thought Alan Royan was a mere plodder, a man without courage, imagination, or sensibilities, who owed his sudden prosperity to sheer good luck. That was what hurt the worst—for a man of smaller calibre to outdistance him so utterly!

As Wilson neared the western tip of Ile Outarde, he pressed down the brake and snubbed the speed of his sled. Cautiously, keeping in the fringe of tree shadows, he skirted the south shore for a quarter of a mile, till he saw ahead of him the black squatting outline of Royan's cabin and beside it the stark, gaunt framework of the house which Royan had started to build for his home with Margery Grantham.

He stopped the *komatik*, pushed it into a juniper thicket, caught up a sack and started for the fox-pen a bow-shot from the cabin. Before climbing the first high fence he crouched for twenty minutes in a clump of trees watching and listening.

This was the first criminal thing he had ever done. It felt queer to be a sneaking robber. If Royan caught him at the theft, he could expect to be shot in his tracks.

Hearing nothing, he stepped out, climbed the wire fence and dropped softly inside. A dozen or more foxes stopped their frisking and grouped in a circle twenty yards away watching him. He crept silently up the enclosure to a small inner pen. Listening at the gate and hearing nothing from the dark cabin, he entered the pen where Royan kept his pair of beauties by night.

The pair of silvers had scooped out a small burrow in the snow. Shielding the flash with his body, Wilson snapped on his flashlight, to be absolutely sure he was getting the right ones. One glint of the yellow pencil shone upon them. There was no mistaking that magnificent pair—so beautiful that his heart missed a beat as he saw them. They were snuggled in the burrow with their dainty noses tucked into their thick brushes. Tame as kittens from Royan's gentle handling, they looked at him curiously, blinking their flaming oval eyes at the light.

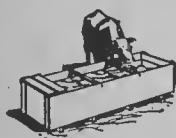
Despite his need of haste and the danger of Royan's rifle, Wilson could not help staring at them for

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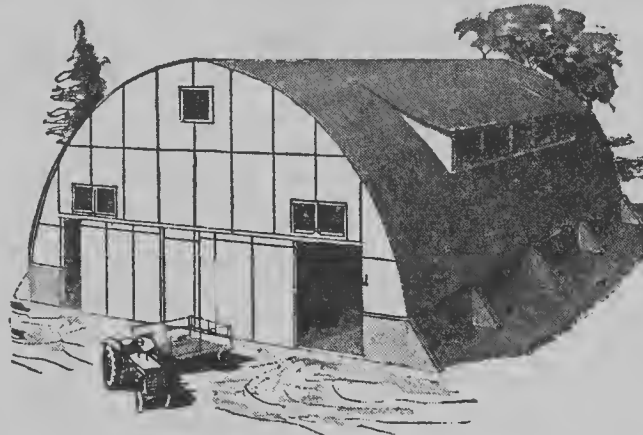


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a few seconds. Their jet-black fur gleamed with a warm, rich iridescent sheen. The long king-hairs were spread through the peltage like filaments of silver. The silver markings, reaching halfway down their backs, were penciled exactly alike, as true and beautiful a match as if a master artist had designed one pattern for both.

After a few moments Wilson thrust in his hand and patted the head of the black prince. The vixen nuzzled his wrist with her sharp nose and whined for a tidbit. The man lifted her out and slipped her, unprotesting, into the bag. The black prince followed. They struggled a bit and clawed at the gunny-sack, but he quieted them with a little patting. Tying the bag and catching it under his arm, he left the pen and started for the lower fence.

Though they were quiet enough around their owner who fed them each day, the foxes in the outer pen were not nearly so tame as the pair of grand prizes. When Wilson was within a few steps of the lower corner, a skittish vixen ahead of him, imagining herself trapped in the angle, let out a sharp yap.

It was all that was necessary to create a sudden panic among the half-wild animals. Yapping, barking, they shot back and forth and around the pen, leaping against the wires and raising pandemonium.

In two jumps Wilson reached the fence. Holding the sack in his teeth he climbed up, slipped through the strands of barbed wire, dropped outside, and leaped into the tree shadows.

THE cabin door was flung open. Royan came running out half-dressed, but with his .303 in his hands. He stopped a moment, viewing the pandemonium in the enclosure; then jumped through the gate and ran straight for the inner pen. Wilson heard an oath and saw his black looming figure against the snow. Then Royan ran toward his cabin.

Wilson rose and ran for his *komatik*. He dared not hide in the timber, for Royan would follow his tracks. The *komatik* would be seen as it left the island, but that could not be helped now. Royan could not recognize it and could never catch him with a slower sled.

He reached the *komatik* and tumbled the pair of silvers into the cage. As the sled slipped out of the dark fringe of shadows a rifle cracked up at the cabin, and a bullet whizzed over Wilson's head. He crouched lower and loosened all the canvas.

The gun did not speak again. Glancing back at Ile Outarde fading into the darkness, Wilson saw a white-sailed *komatik* gliding out from the wharf below the cabin and skimming after him.

Fourteen miles southwest across Lac aux Cygnes a dozen wide-mouthed creeks came in from a water-logged muskeg country. Safety lay in that maze of channels, lakes and rivers. They were all blown free of snow; all were avenues of escape, once they were reached. A *komatik* could dodge up any one of the dozen. A few twists and turns, and the pursuit would be hopeless, for an ice-sled leaves no tracks.

Wilson had thought beforehand about the possibility of a pursuit. Be-

hind the stove in MacGillivray's trading room he had mapped out the rivers and river-widenings he would take for thirty miles before swinging back east to his trapping shack.

He had made a hiding place for the foxes near his shack in case suspicion fell upon him. He knew an outlaw trader—a "permit" peddler and Indian sharp—who would give him nearly a third of their real value and ask no questions.

If he escaped!

The *komatik* under him was scudding straight before the wind. Lithe and flexible as a snake, it took the tiny frost ridges and ice seams with

hardly a tremor. Its hickory-heart runners, smooth and hard as ivory, struck up a steady crooning cadence as the sled passed out of the island windbreak and caught the wind, full strength.

The sled behind, invisible except for its white sails, somehow did not seem to be losing. Again and again Wilson glanced back at it anxiously. It seemed to hold its own; seemed at times even to be creeping up on him. What if Royan had struck a combination of sail and runner that beat his own?

A panic grew upon him. If Royan overhauled him there would be no

indecision! They were alone out in the middle of the dark lake. Royan could stand off beyond revolver range, kill him with the rifle, shove him and his sled under the ice, and who would ever know a whisper of it? It was a carcajou act—this theft of a man's priceless animals; and carcajous were shot on sight. Wilson knew that he himself in a similar circumstance would show no mercy.

It was only in his fears that the white-sailed *komatik* gained; in reality it was falling behind, unable to match the terrific speed of the craft ahead. At the end of five miles Wilson realized he was going to win, and his faith

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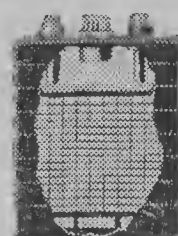
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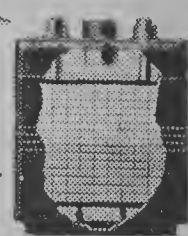
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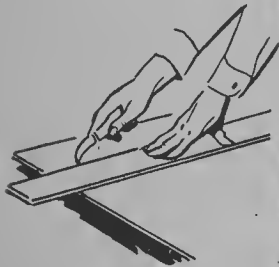
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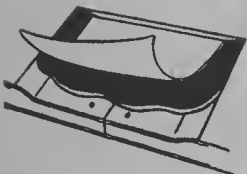
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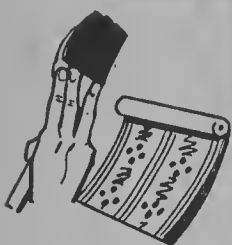
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in his sled came back. The sled behind him was losing.

Perhaps it was carrying too large a spread of canvas for its length and span of runner. Whenever the wind rose fitfully and savage gusts struck it, it bucked and swerved. In three more miles the white sail was all but out of sight. In another mile, when Wilson looked back, he could not see Royan's craft at all.

He looked back seldom after that, giving all his attention to the route ahead. Low in the southwest a dim black line marked the forest shoreline. It was a scant four miles as the teal flies, but nearly six as the komatik would have to travel, for a straight shoot to it was impossible. Two miles off the shore lay a barrier of thin ice. The lane was four or five miles long but only about a hundred yards wide, marking the place where at low water a granite backbone stood up out of the lake.

For some strange reason this stretch hardly ever caught over except for a thin treacherous glaze at night. Stranger still, in the clearest, coldest weather the ice was thinnest. A roving geologist once tried to explain something about the sun's rays, the crystal water, and the massive rock just beneath. The Athapascans explained that the granite reef was the backbone of a monster whose hot breath kept the ice from forming.

A mile from it Wilson leaned his weight on the left runner and swerved the komatik sharply south. His plan was to head straight for the treacherous strip and then swerve sharply around it. He figured that Royan, in his furious pursuit, would forget about the peril and plunge straight into it. The chances were good of his speed taking him fifty feet before he broke through. The chances of his skimming clear across were literally one in a hundred.

It was a trap of diabolic shrewdness—that playing upon Royan's desperation; the most cunning deadfall that Wilson in all his life had ever laid.

As he rounded the southern end of the strip and veered west diagonally toward the first of the muskeg creeks, he kept glancing back along his route, watching for the white sail he knew could not possibly be within a mile of him. Above the croon of his komatik he listened, an ear to the wind, for a yell betokening that Royan had forgotten the perilous strip. He saw or heard nothing but the moon glistening and the whine and whistle of the wind.

The creek mouth loomed toward him. The brake hook scraped a long white line in the ice as the komatik slowed. With Royan's pair of magnificent silvers all his own now, with the memory of Margery Grantham in the trading store still vivid in his mind, he laughed aloud at the completeness of his work that night.

In the very middle of his laugh he choked back an oath.

LURKING in the shadows of the creek mouth scarcely a hundred yards away, his eyes caught sight of a white-sailed komatik, awaiting him. With a lightning kick at the brake and a lunge upon the left runner, he tried to whirl his sled and head it south to the open lake again. But he was

too close. A rifle barked in the shadows and a bullet screamed past his ear. He knew it for what it was—a warning. Royan was no bungler with a gun.

The reef lines dropped from his nerveless hands. He slumped down in his seat, quivering, cursing this last stunning blow of his evil luck. Gently the craft glided up and ran its nose against the bank a few yards from the white-sailed komatik.

Royan stepped toward him, rifle against his hip.

"Toss your belt-gun on the ice, Wilson," he bade, with steel in his voice. "Don't try to shoot—your hand is out tonight."

The belt-gun slid to Royan's feet.

"Now put the pair of silvers on my komatik. Then we'll add up our ciphers."

Wilson stumbled to the sled with the cage, and turned again to Royan. The latter did not speak.

"Don't be all night about it!" Wilson growled, raising his head. "Why didn't you pot me that first shot, instead of dragging me in to crow over me?"

Royan wetted his lips.

"I guessed it was you, Wilson—over at Ile Outarde. I knew it was you when your sled drew out of sight out on the lake."

"Your damned luck!" Wilson snarled. "That's how you got here and caught me."

"Luck? I cut across that strip of scum ice, that's how! If you'd had the nerve to try that, you'd be skipping up one of these creeks now."

Wilson started as if hit a blow. He swiped a hand over his eyes.

"You—come—across that strip—of scum ice?"

"You'd have escaped if I hadn't."

There was a moment of silence. Wilson staring at his captor and the gleaming rifle barrel.

"Go ahead!" he snarled. "A man who'll take a hundred to one chance with his own life, he's got the right."

"But you're going to say first that it wasn't luck."

Wilson did not answer at once. He was cursing his own cowardice, realizing that Royan, in walking boldly into his trap, had starkly proved himself the better man.

"It wasn't luck," he admitted finally. "I didn't have the nerve. You did."

"It's been that way all along, Wilson," Royan went on. "You've whined about luck, when it wasn't luck. You've got abilities enough, or did have before this bug started on you. You were born with a timber eye. With a good cruise you'd make a mark at estimating. Two or three steady, hard-working years with a company like the Lanewell-Akers, and you'd be somebody—or might have been before you started whining about luck. You're going to see that too—before we finish."

Wilson hung his head; he did not want Royan to see his quivering features. In the clear light of Royan's act he had to admit that his philosophy of evil luck broke down for once. But to own that his downhill trail and all the wasted years and now this miserable failure even to be a thief,



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could not be chalked up to malicious luck, but to his own shortcomings as a man—that was too bitter a dose to swallow! He kept a stubborn silence, waiting.

"We'll add 'em up now, if you've thought it over," Royan said tersely. "You expect me to shoot you. That shows you've got some lingering sense of justice. But I'm not going to. It wouldn't pay.

"I could shoot you and shove you under the ice, and nobody'd be the wiser. But it would stick in my memory! I couldn't associate with my conscience as friendly as I do now, and you're not worth that price! I could drag you back to the settlement and turn you over to the Mounted. But somebody else would pay heavy for that. I'm talking about Charlotte Irvine.

"A couple of weeks ago she wrote to me and asked about you. I haven't answered yet, haven't worked up nerve to tell her you're a bush-sneak, a pink-eye guzzler. I'd rather shove you under the ice than write to her and say I turned you over to the Mounted because you were a sneaking carcajou! So I figure the best way out of this for other people, and the worst way for you, is to just let you go. Now get!"

Kicking the belt-gun toward him, Royan turned, pushed his sled out on the ice, stepped on and started toward the lower end of the dangerous strip. Sagging down upon his sled, Wilson watched him veer and tack against the adverse wind till the white sail was swallowed up in the darkness.

For half an hour afterward he sat there silently, fighting against the re-surg-ing impulse to pick up the belt-gun and use it on himself. At the thought of Royan sparing his wretched life—handing it back to him in a circumstance where he himself would have shot his enemy without hesitation—he saw how Royan towered over him. All his old, sustaining conviction of superiority was blasted. His sour-luck philosophy deserted him.

WHAT was ahead of him? All his old wretchedness, but now without even the comfort of blaming it on evil fortune. "The worst way for you"—in his black misery he realized the truth of those words! Royan had read his misery; it was Royan's revenge.

His anguish was too keen to last long. Gradually he came out of the abyss of soul, where a lesser man would have stayed; because he did have courage of a kind. He faced the bitter truth about himself and fought against the phantoms of utter despair.

A half hour later he hurled the belt-gun away from him as far as he could throw. He then sat silently on his sled, mentally building a goal for himself, gathering strength of purpose and resolution to attain it. Rising finally, he shook himself like an aroused bear, his face set toward the timber limits to the south.

"I'll go!" he said in a voice strange to his own ears. "But before I do, I'll go north to the Chipewyan camp. The Grantham girl will still be there. I'll tell her face to face who started that lie about Royan and the Indian girl. If I've got backbone to do that, it'll show there's a chance for me yet!"



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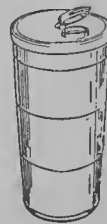
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If you are one of those people who should avoid caffein — SWITCH TO POSTUM. Postum cannot possibly upset you — because Postum CONTAINS NO CAFFEIN. It is a delightful beverage — and is made instantly in your cup. Costs less than a cent a serving. Ask for Postum now. At your grocer's, restaurants, your club or on the train. A product of General Foods.



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-yet costs so little to use!

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AT YOUR LUMBER OR BUILDING SUPPLY DEALER

The Countrywoman

Unto an End

*We live in deeds, not years; in thoughts, not breaths;
In feelings, not in figures on a dial.*

*We should count time by heart-throbs. He most lives
Who thinks most, feels the noblest, acts the best.*

Life's but a means unto an end; that end

Beginning, mean, and end to all things—God.

—PHILIP JAMES BAILEY.

SAID editor Norman Cousins, of the Saturday Night Review, New York: "Our world today, is not only unpredictable but also unfriendly. Throughout our social thinking runs a modern litany: a solemn, responsive supplication—man's constant search for 'wholeness'."

Homeless migrants, those unfortunates displaced because of war, confined for long periods in prison or relief camps "actually had the boundaries of their personalities contracted," was the observation of an English woman, Miss Younghusband.

George Desmottes, a leading social welfare worker from France, administrator and author of numerous works in periodicals on subjects related to family assistance and family problems in general, pointed out: "Dependency, inertia and absence of social conscience were apparent in people who had lived long in concentration camps or under autocratic and dictatorial regimes.

"Dependency may result from social customs, from climate or from religion. It is expressed in some cases by the status of women. It may be the result of a philosophy of life . . . But it is also created by some governments which undertake centralized controls with the consequence that local and individual initiative are undermined.

"The whole of the social welfare movement, public as well as private, is convinced of the worth of human dignity," was the text of Mr. Desmottes, paper delivered to a plenary session of the International Conference on Social Work, recently in Toronto. The theme of the meeting was Self-Help and Co-operative Action.

It was a great privilege to hear the address given at a general session by Dr. J. F. De Jongh, Director of the School of Social Work, Amsterdam, a position he has held since 1945. A graduate lawyer at 21, he spent several years with the Netherlands Ministry of Economic Affairs, during which time his main job was in the organization of industry. The president of the Conference, Mr. George Haynes, London, England, in introducing Dr. De Jongh to delegates from 41 countries, reminded them that the first school of social work to be established in the world was in the Netherlands in the mid-1800's. In thanking the speaker at the close, he described the address as a "thoughtful, masterly, splendidly balanced argument on Self-Help in Modern Society." Condensed, lifted from their context and slightly rearranged, some of highlights of Dr. De Jongh's message are here given:

"By 'modern' society, I suppose we mean the society in which those typical modern forces: mechanization, industrialization, organization and urbanization have appeared . . . In both the East and the West, and to a much greater degree in the latter, they have put their mark on the direction in which society is moving. They are dynamic and decisive forces. Our society is gripped in a continuing process of change and the speed of that change is increasing.

"What is the nature of the change, in terms of human life and how does it affect the capacity of a human being to help himself?"

FIRST of all, it means a gradual decline, sometimes even the destruction of old traditional groups in which the human being was reared and lived mostly until his death: the family, the village and the church. These groups for the individual,

The individual human being and his power of self-help, pictured against a backdrop of the changing pattern of modern society by a visiting welfare worker

by AMY J. ROE

before the industrial revolution, provided a protecting and helping environment; a familiar setting in which he knew fairly well the demands which would be put upon him; a gradual learning to solve his problem and time given to develop his problem-solving capacity.

In an industrializing civilization, human life patterns and problems are different. New methods of production require new understanding and new skills; new dangers are encountered; new human relationships and responsibilities come for some, new frustrations for others.

There is a constant flow of people, migrating to and from great industrial and commercial centers. People are uprooted and have to adjust themselves to new environments and new patterns of culture, new sets of values, new ways of competition, new methods of work and new colleagues. They may have to learn to live in new urban areas. Of the difficulty of establishing a feeling of "community" in urban areas, the speaker quoted Prof. A. D. Ritchie in his book: "Science, the Universities and the Modern Crisis:"

"'Community,' one cannot call it, because that is just what it is not. Improved mechanical means of 'communication' have made real communication impossible. They enable a man to work in one place, sleep in another, rush off elsewhere in his spare time—and live nowhere. He has more and more acquaintances and fewer friends . . . My vision of Hell is of endless streets filled with hurrying crowds. Whenever you ask one of them the way, the reply is always the same: 'I'm sorry, I'm a stranger here myself'."

The complexity of modern society is increased, due to the growing interdependence of all parts of the world, and of all forms of our activity. This serves to "make this world very untransparent, even for the most informed of us. The human mind is not—or not yet—able to grasp all the interdependencies and see through them and so obtain a clear picture of why things move as they do . . . In spite of all our new understanding, the world seems to be very unpredictable, very un-understandable for most of us . . . The individual capacity to under-

stand a given situation and to act accordingly, is still and becomes daily more a threatening problem—threatening because of this element of decline of the individual's capacity to understand what is going on, and how, therefore, he should act."

Another relevant symptom is: the emergence of what could be called "the great apparatuses:" great factories, trusts, banks, political parties, labor unions and the states themselves with their huge bureaucracies. They are all great and very powerful and use their power in unexplained ways . . . They complicate society even more and contribute to our feeling of not-understanding, our sense of inadequacy, of being manipulated and of being powerless.

IN modern society, the human being is more and more deprived of natural human bonds which in older societies, he used to grow up and which helped him to feel safe and at peace. In that security, man learned to manage his own land, manage his children and his own life-problems. Now at the very time he is losing that surrounding security and becoming more and more lonely, he has to find a completely new life; take on new responsibilities; move in strange surroundings and solve new problems in connection with strange people.

And while these modern forces undermine man's capacity to rely on himself and to help himself, modern society on the other hand expects from the modern citizen more mature problem-solving than ever before, because of the necessity of adjusting to ever-changing conditions.

When man's natural capacity and his traditional ways of helping himself fail him—then it is not surprising that social breakdown, in all its forms and disguises, should become a general symptom. In these circumstances often a man's will to help himself weakens; he is discouraged and frightened and looks for help from others.

New forms of mutual help may then develop. Mutual help is, sociologically speaking, a by-product of community feeling. It only develops in relatively small and closely tied groups. The word "self-help" is often used when groups of people solve their own problem. These efforts may vary in form: mutual aid; assistance and co-operative action. When we look around the world we find many manifestations of the human co-operative instinct. Even this form of aid may not be sufficient and then a larger community is called upon to help. The state may be asked to assist.

It becomes clear, when we look at social facts, that in the life of the individual as well as in the life of communities self-help and help from the outside both play a vital part. They are not contrasts—but complements.

MAN is born as an utterly dependent being. To grow and develop he depends upon years of careful, warm, unselfish help. This help must be aimed at developing in the individual his own capacities, judgment, skills—at making the dependent child into a mature, independent adult. But it is not within human nature to reach complete independence . . . At many moments in our life we shall cry out for help; for our many needs, we shall continually need help from our fellowmen and reach out for closer communion.

"While we admit the truth that the human being is born utterly dependent—we know too that there is in him a strong drive and desire to make himself independent. This drive, if not inhibited too much by discouraging experiences carries him quite a distance. He will never reach complete independence, because in all fields, physically, materially, mentally and emotionally, he continues to need his fellowmen. Thus he lives in a kind of equilibrium of dependence and independence, different for each man and different in each phase of our life—and unstable in a high degree!"

Mostly, rather small changes in our life situation are sufficient to upset our (Please turn to page 68)

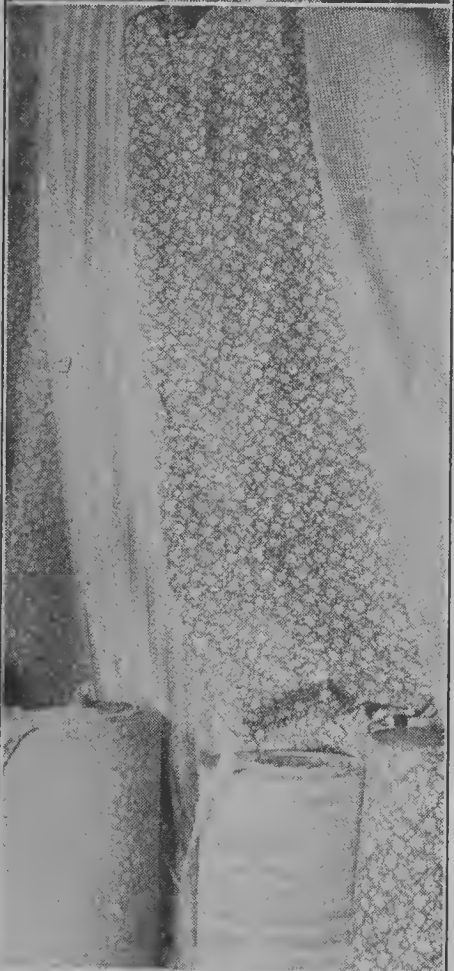




Durable pyjamas and housecoat; attractive light summer dresses and tot's gay play dress—all made from cotton bags.

Sewing Tricks - - With Cotton Bags

by
NAN
SHIPLEY



Smart for beach or square dance wear. Material shows wide variety in designs.

COTTON bag fabrics have become fashion news. Bags that for years were used only for jelly bags, dusters, everyday dish towels, or pillowcases for the back bedroom have taken on gay printed designs and new colors. They have blossomed out in the latest styles, in washable non-fade dresses with full and straight skirts, sun dresses, house dresses, aprons, housecoats and pyjamas. There are children's play and school clothes of the sturdy cotton materials and, of particular interest to the youngsters, gaily printed cotton doll clothes, stuffed toys, bean bags and other novelties.

In 1948 Gerald Dennehy of Winnipeg persuaded a well-known western seed firm to pack its products in gaily printed cotton bags rather than ordinary white sacks. Dubiously they tried them for one product, then for others. Sales increased. Many farm women were insisting that their men purchase only those fertilizers, chicken starters, hog foods and seeds that were packed in printed cotton bags. Other feed and farm-fodder companies quickly followed suit.

Five years after her husband's idea was accepted, Doreen Dennehy presented the first "Feed-bag" Fashion Show to take place in Canada. Featured were house dresses, sun dresses, at-home dresses for all-day wear, even dresses made especially for square-dancing parties. Little girls modelled school dresses and sun suits, boys showed off their shirt-and-shorts holiday outfits and there were housecoats and pyjamas for the entire family. Enthusiasm ran high. The show was a success.

This year the cotton prints are even more attractive. They come in a dozen or more modern designs, checks, florals, plaids and stripes adaptable to a host of sewing needs. The fact that only a limited supply of any one pattern is released and the colors and designs changed each year eliminates the risk of duplication in dresses and other garments.

Printed bags offer a bonus to the home sewer. Their use in the packing

of fertilizers and feeds adds but ten cents to the cost of the product sold in the former white or natural bags. All printed cottons retail for much more than this, while similar high-quality color-fast fabrics sell for as much as a dollar a yard.

A hundred-pound cotton feed bag is made up of one and one-third yards of fabric. Three will make a size 18 dress. A fifty-pound bag contains a full yard of cotton print, sufficient for an apron, a small girl's frock or a seven-year-old boy's really nifty shirt and pants. As for the small five, ten and twenty-five-pound bags there is almost no end to the uses for them. They make excellent protective covers for silver trays and crystal ware. They add a note of color to bureau drawers and closets when used for storing hosiery, blouses and handkerchiefs, as shoe bags, laundry bags or shoe covers. With drawstrings added they are useful for holding knitting, clothespins or the children's marbles.

WHILE the accent is on prints, plain white and natural colored bags will continue to be used in the home. They take to dye readily and, used alone or in combination with prints, are most useful in the carrying out of many clever sewing ideas.

When used with ingenuity plain and printed bag cottons can give a new look to rooms. Many of the designs are especially appropriate for kitchen duty. Gay curtains, matching tablecloth, chair backs and cushions and other harmonizing touches will lend color and smartness.

They can add a fresh, yet inexpensive, touch to a young girl's room. For example, transform an old bed into a modern unit by covering the headboard and making the top of the bedspread in a solid tone. Complement it by a dust ruffle of print. Make curtains, dressing table skirt and cover for the vanity seat to match the dust ruffle, then complete the ensemble by a touch of solid color in the chair cushion, a band at the top of the dressing table skirt and a cornice board over the window.

So popular has the idea of using printed cotton bags in home sewing become within the last four years that a well-known textile company has combined with a popular pattern maker to publish a helpful booklet filled with numerous styles and novel inexpensive ideas for using printed cotton bags. The only difference between this pattern book and others is that, instead of listing the required yardage for each style, the size and number of bags needed are given — "Sun dress, size 14, takes two one-hundred-pound bags 40 by 46 inches."

In the factory the bags are sewn in a single seam by chain stitch. To re-use simply remove the seam by cutting off the end of the chain as close to the bag as possible, then taking the top thread in one hand, the bottom thread in the other, pull firmly but gently. In a few moments the bag will be a large flat piece of material.

The trade-marks on the printed cotton are so applied that they will come off quickly and easily. Some are in the form of adhesive paper labels, others are printed on the bag in washable ink. To remove either, soak the fabric in warm, soapy water for a short time, rinse well and leave to dry. The material is pre-shrunk and when pressed is ready for cutting.

Yardage requirements are slightly more when bags are used in sewing larger garments than when material is purchased by the yard. Allowances must be made for fitting the pattern pieces on the bags without piecing the length of the skirt, the bodice, sleeve or pyjama legs. When planning a garment to be made from bags, choose a pattern that hasn't many pieces and that has no piece longer than the length of the bag.

Not only the farm women but city housewives, with an eye to thrifty sewing, have discovered these useful bags. The city seamstress can hardly hope to induce her husband to purchase half a ton of fertilizer that would give her ten yards of cotton goods. But she has found that local feed and seed dealers sell empty feed bags at a low price.



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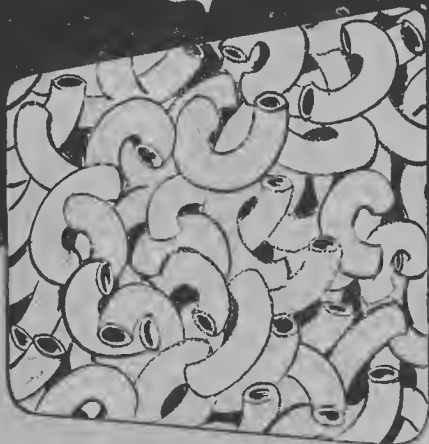
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IN OUR
BLUE & GOLD

3 lb PACKAGE

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Pickling Time Is Here

For added zest and flavor in winter meals a new booklet of pickle, relish and conserve recipes is introduced

by LILLIAN VIGRASS

THERE is nothing quite like crisp, juicy homemade pickles or relish to add the final touch to a midwinter stew, pot roast, pork chops or hamburger steak. They bring out the full flavor of the meat they accompany, they are a flavorful addition to a meat or vegetable salad and they add a special tang to a sandwich meal.

In order to offer homemakers a collection of high-quality recipes for these products the home economists of the Consumer Section of the Department of Agriculture collected numerous recipes of pickles, relishes and conserves. They tested and retested, varying the amount and kind of ingredients, trying new and different methods, until they had a selection of recipes that were tasty, easy to prepare and which made use of the products grown in our own gardens.

Really good pickles are firm, crisp and clear with a tart, pungent flavor. Relishes have a fresh color and an even texture of finely chopped, crisp vegetables and spicy sauce, say the home economists.

They advise the use of fresh, high-quality vegetables, pickled within 24 hours of the time they are gathered, a clear standard vinegar that is free from sediment, and a pure granulated salt. Whole spices are a better choice than the ground as they retain their flavor longer. To prevent them turning the pickles dark during storage put them in a spice bag that can be removed after cooking. Make the spice bag of a thin piece of material large enough to allow the juices to circulate freely through the spices in the bag. To prevent softening, storage of the finished product—sealed airtight—in a cool, dark place, is recommended.

These selected recipes, some of which are included here, have been published in a new booklet, *Conserves, Pickles and Relishes*. Copies of the booklet are available by writing to the Consumer Section, Department of Agriculture, Ottawa.

Ice-Water Pickles

Select and wash 3 lbs. firm cucumbers 4 to 5 inches long. Cut lengthwise into quarters. Soak in ice water for 3 hours. Drain well and pack into clean pint sealers. To each pint add:

$\frac{1}{2}$ tsp. mustard seed 2 thin slices onion
 $\frac{1}{2}$ tsp. celery seed

Combine and boil for 5 minutes:
 $\frac{1}{3}$ c. salt 4 c. vinegar
 $\frac{1}{2}$ c. sugar

Pour hot liquid over cucumbers, filling sealers to top. Seal immediately. Makes 6 pints.

Ripe Cucumber or Marrow Pickle

10 c. ripe cucumber or vegetable marrow
 $\frac{1}{2}$ c. chopped onion
 $\frac{1}{2}$ c. water
 $\frac{1}{2}$ c. flour

2 c. brown sugar
2 tsp. tumeric
4 c. vinegar
4 tsp. celery seed
 $\frac{1}{2}$ tsp. salt
 $\frac{1}{2}$ c. mustard

Peel cucumbers or vegetable marrow, cut in $\frac{1}{2}$ -inch cubes and measure. Sprinkle

vegetable with 2 T. salt, let stand 1 hour. Drain thoroughly. Cook slowly in water until tender, about 15 minutes. Drain thoroughly. Make mustard sauce by mixing flour, brown sugar, salt, mustard and tumeric to thin paste with $\frac{1}{2}$ c. vinegar. Heat remaining vinegar and celery seed to boiling point. Slowly add hot vinegar to mustard paste, blending well. Cook, stirring constantly until thickened, about 5 minutes. Add drained vegetables, heat to boiling. Pour into hot, sterilized jars. Seal. Makes 8 cups.

Dutch Relish

2 c. green tomatoes	2 c. onion
2 c. peeled cukes	3 T. salt
1 sweet red pepper	3 c. cider vinegar
1 green pepper	4 tsp. dry mustard
1 large head celery	$\frac{1}{4}$ tsp. tumeric
	$\frac{1}{2}$ c. sugar
	$\frac{1}{3}$ c. flour
	$\frac{1}{2}$ c. cold water

Prepare vegetables. Peel cucumbers. Chop or grind tomatoes, cucumbers, peppers, celery, including leaves, and onions. Measure, then combine. Add salt and stir well. Add just enough boiling water to cover. Allow to stand 30 minutes. Pour into sieve or cheesecloth bag and drain thoroughly. Cover with vinegar. Bring to a boil. Combine mustard, tumeric, sugar and flour. Blend to a smooth paste with cold water. Add to vegetables, bring to boil. Boil 2 to 3 minutes. Pour into hot, sterilized jars and seal. Makes 10 cups.

Raw Cucumber Relish

6 large cucumbers	$\frac{1}{2}$ - $\frac{3}{4}$ tsp. white pepper
1 large onion	$\frac{2}{3}$ c. sugar
1 T. salt	$\frac{1}{4}$ c. water
$\frac{1}{4}$ c. white vinegar	

Peel cucumbers, cut into quarters and remove seeds. Chop finely or put through coarse grinder. Chop onion. Measure. You should have 8 c. cucumber, $\frac{1}{2}$ c. onion. Combine with salt. Mix well, place in colander and allow to drain thoroughly. Bring vinegar, water and sugar to boil. Stir until sugar is dissolved. Remove from heat, add pepper and drained vegetables. Blend well, pack into sterilized jars, seal. Do not use for at least one month. Makes 5 cups.

Beet Relish

2 c. cooked beets	$\frac{1}{8}$ tsp. pepper
2 c. raw cabbage	1 c. sugar
2 T. horseradish	$\frac{1}{4}$ c. blended vinegar
$\frac{1}{2}$ tsp. salt	

Chop beets and cabbage finely with a knife. They may be put through food chopper, but the relish will not be as crisp. Measure then combine. Add horseradish and mix thoroughly. Pack lightly into sealers. Combine salt, pepper, vinegar and sugar, bring to boil and pour immediately over vegetables. Seal and store in cool place. Makes 2 pints. Note: Beet relish may fade after long storage period.

Pickled Whole Beets

40 to 50 small beets (1½ inches in diameter)	1 c. sugar
4 c. cider vinegar	$\frac{1}{2}$ tsp. salt
$\frac{1}{2}$ c. water	3 T. whole pickling spice

Select small young beets. Leave 2 inches of stem and root on beets. Cook until just tender. Dip in cold water and remove skins. Pack in sterilized sealers. Boil together vinegar, salt, water, sugar and spices, tied in cheesecloth bag, for 5 minutes. Remove spice bag. Pour over beets to completely cover. Seal and store in cool, dry place. Makes 4 pints.

Meat Loaf Variety

Hot or cold, for special or everyday occasion, meat loaf is delicious



As a flavor treat for any meal serve meat loaf with browned pineapple slices.

MEAT loaf, that year-round favorite, brings a variety of flavors to family meals. It may be of ground beef, of pork or veal, alone or in combination with beef, or it may include bacon, ham or ground bologna.

Herbs and seasonings provide an almost unending variety of taste treats. Marjoram, sage, thyme, mustard and savory add a distinctive flavor as do small amounts of dry or prepared mustard, ginger, allspice, cloves or horseradish. Add chopped pickle, diced celery or green pepper for a different taste, or season the loaf by using half catsup, half milk in the basic recipe.

Meat broth, sieved canned tomatoes, chili sauce or tomato juice used to replace the liquid in the meat loaf standby make a new main dish. And rolled oats used to replace the bread crumbs will make the loaf easier to slice when served cold.

Beef, the most commonly used ground meat, may be round steak or the less expensive minced beef made from the shank, chuck or similar cut. Tests made by the home economists of the Consumer Section of the Department of Agriculture show that minced beef makes as good, if not better, meat loaf than ground round steak. It seems to have more flavor, it is not so compact nor dry and it is definitely less expensive.

If the family likes a crusty loaf and wants gravy with the meal, bake the meat mixture in a mound about 2½ inches high in a shallow pan. It may be made in the more conventional deep loaf pan then garnished for serving with slices of pineapple, apple rings or peach halves; or for added flavor place slices of bacon beneath the loaf in the deeper pan then serve it upside down.

Bake it slowly to allow the flavor to develop and to keep the loaf moist. If you make two loaves at one time you can serve one hot with vegetables for dinner, the second cold with a salad for lunch or supper on a hot day.

Favorite Meat Loaf

- | | |
|------------------------|---------------------|
| 1 lb. ground beef | ½ c. milk |
| ¾ c. rolled oats | 1½ tsp. salt |
| 1 egg | ½ tsp. pepper |
| ½ to ¼ c. minced onion | 2 slices side bacon |

If available also add ¼ lb. ground pork. Put all ingredients except bacon in large mixing bowl. Mix well with large fork until uniform throughout. Put two slices bacon in bottom of small deep loaf pan. Pile meat over it. Pat down to level. Bake at 350° F. for ¾ to 1 hour.

Basic Meat Loaf

- | | |
|--------------------------|-----------------------------|
| ½ c. dry bread crumbs or | 2 T. finely chopped onion |
| 1 c. stale bread cubes | 2 tsp. Worcestershire sauce |
| ¾ to 1 c. milk | ¼ c. chopped celery |
| 1½ tsp. salt | ¼ c. chopped parsley |
| ½ tsp. pepper | Additional seasonings |
| 2 lbs. ground meat | |
| 2 eggs | |

Celery and parsley are optional. Beat together crumbs, milk and eggs. Add other ingredients and mix thoroughly but lightly. Fill a greased loaf pan 9 by 5 by 3 inches to ½ inch from top. Bake in moderate oven for 1 to 1½ hours. *Topplings:* If desired, top loaf, before baking, with ½ c. chili sauce, catsup or a mixture of 4 T. catsup, 3 T. brown sugar, ¼ tsp. nutmeg and 1 tsp. dry mustard. Or spread with 2 T. prepared mustard and 2 T. vinegar for a flavor change.

Beef Loaf

Vary basic recipe by adding ½ tsp. savory or ¼ tsp. marjoram or 2 tsp. prepared horseradish or 1 tsp. dry mustard. Use 2 lbs. ground or minced beef.

Pork and Beef Loaf

In basic recipe use 1¼ lbs. ground beef, ¾ lb. ground pork. Season with ¼ tsp. sage or marjoram or ½ tsp. savory.

Beef and Liver Loaf

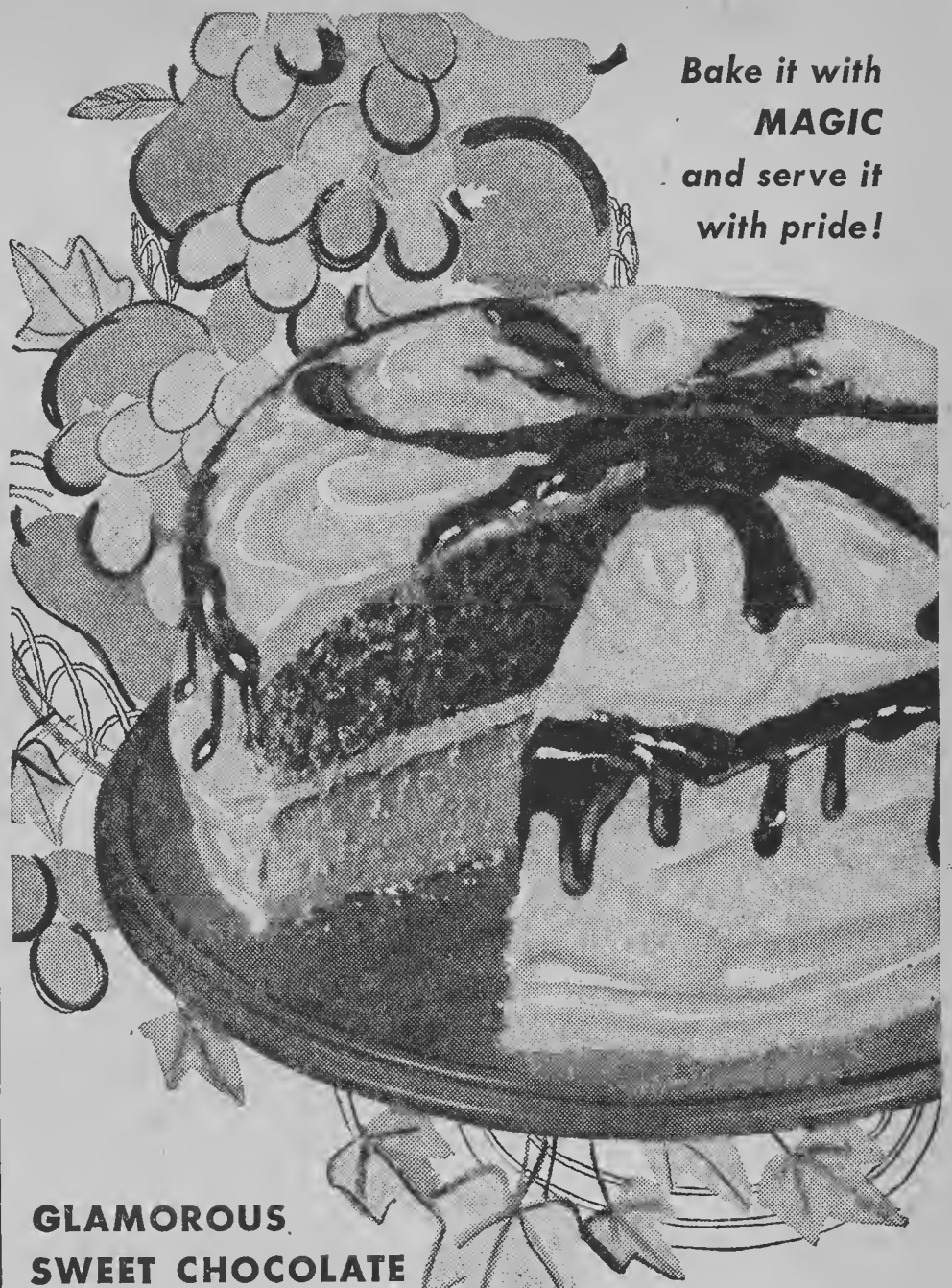
Use 1¼ lbs. ground beef and ¾ lb. beef or pork liver. Scald liver 5 minutes, drain and grind. Use ¾ c. milk. Add 4 T. finely chopped onion and ½ tsp. savory or ¼ tsp. marjoram.

Pork and Ham Loaf

- | | |
|--------------------------|--------------------|
| 2 lbs. ground fresh pork | 1 c. milk |
| 1 lb. ground smoked ham | 1 egg |
| 1 c. dry bread crumbs | ¼ tsp. onion salt |
| | ½ tsp. garlic salt |
| | ½ c. tomato soup |

Make a mixture of all ingredients except tomato soup. Pack into loaf pan. Pour

Bake it with
MAGIC
and serve it
with pride!



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Costs less than 1¢ per average baking!

SWEET CHOCOLATE SPLASH CAKE

- 2 cups sifted cake flour
- 3 tps. Magic Baking Powder
- ½ tsp. salt
- 10 tbsps. butter or margarine
- 2 eggs, well beaten
- 1 cup fine granulated sugar
- ¾ cup milk
- 1 tsp. vanilla
- 2½ ounces unsweetened chocolate
- 2 tbsps. milk

Grease two 8-inch round layer-cake pans and line bottoms with greased paper. Preheat oven to 375° (moderately hot). Sift flour, Magic Baking Powder and salt together three times. Cream butter or margarine; gradually blend in sugar. Add well-beaten eggs part at a time, beating well after each addition. Measure the ¾ cup milk and add vanilla. Add flour mixture to creamed mixture about a quarter at a time, alternating with three additions of milk and vanilla and combining lightly after each addition. Turn half of the batter into one prepared pan. Melt 1½ ounces of the chocolate over hot water; stir the melted chocolate and the 2 tbsps. milk into remaining batter and turn into second pan. Bake in preheated oven about 30 minutes. Put cold cakes together with part of the following Boiled Frosting, having chocolate layer on top; frost all over with remaining frosting. When frosting is set, melt the remaining 1 ounce chocolate over hot water and let drip on top of cake.

BOILED FROSTING—1½ cups granulated sugar; ¾ cup water; 1½ tps. vinegar; 3 egg whites; 1 tsp. vanilla. Stirring until the sugar dissolves, boil sugar, water and vinegar until the syrup reaches 238° (or until a little syrup will form a soft ball when dropped into cold water). Beat egg whites until stiff but not dry; gradually beat in syrup; beat constantly until frosting holds its shape. Beat in vanilla. Use immediately.

½ tomato soup over loaf. Bake at 325° F. for 1½ hours. Serve with additional heated tomato soup.

Beef, Veal and Pork Loaf

In basic recipe use 1 lb. ground beef, ½ lb. each of pork and veal. Season with savory, sage, thyme or marjoram.

Hamburger Pie

Dressing:

- | | |
|------------------------------|-------------------------|
| 1 lb. ground beef | 1 T. minced onion |
| ¼ c. finely chopped onion | 1 c. bread cubes |
| ¼ c. light cream or top milk | 2 T. butter |
| 1 tsp. salt | ½ tsp. poultry dressing |
| ½ tsp. pepper | ½ tsp. salt |
| | 1 T. hot water |

Combine ground beef, chopped onion, cream, salt and pepper. Remove ½ c. mixture. Line sides and bottom of large

casserole with remainder. Make dressing by browning onion in butter. Add bread cubes and brown. Add seasonings and hot water. Fill lined casserole with dressing. Cover with remaining beef mixture. Bake at 350° F. for 45 to 60 minutes.

Pork and Veal Loaf

In basic recipe use 1¼ lbs. pork and ¾ lb. veal. Use ¾ c. liquid. Season with ¼ tsp. sage or thyme.

Horseradish Meat Ring

- | | |
|-------------------------|---------------------|
| 1 lb. ground beef | 1 egg |
| 3 T. grated onion | 1 c. cracker crumbs |
| 4 T. horseradish | ½ tsp. salt |
| ½ tsp. prepared mustard | ¼ c. tomato soup |

Mix all ingredients. Pack into well-greased meat ring or loaf pan. Bake at 350° F. for 1 hour.

Tips for the Cook

For green punch add lime sherbet to ginger ale. Add small amount vegetable coloring if necessary.

Make cheese balls for a salad by adding a dash of cinnamon and nutmeg to cottage cheese or cream cheese.

When canning add 1 to 2 T. vinegar to the processing water to eliminate the cloudy film that forms on jars sterilized in hard water.

To scald peaches or tomatoes for canning place in a loosely woven cord

bag in which oranges and onions are marketed. They hold the right amount of fruit to scald at one time; they are safe and quick to use.

To shell peas quickly drop peas, pods and all, in boiling water and boil 5 minutes. Chill in cold water a minute or two; drain. Push peas out with thumb and forefinger as you hold pod by stem. This also eliminates blanching for canning and freezing.

Season cooked rice with minced parsley, green peppers, salt, pepper and a dash each of allspice, cinnamon and cloves plus 3 T. butter for 2 c. rice; bake in greased casserole until heated through.

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First Fall Ideas

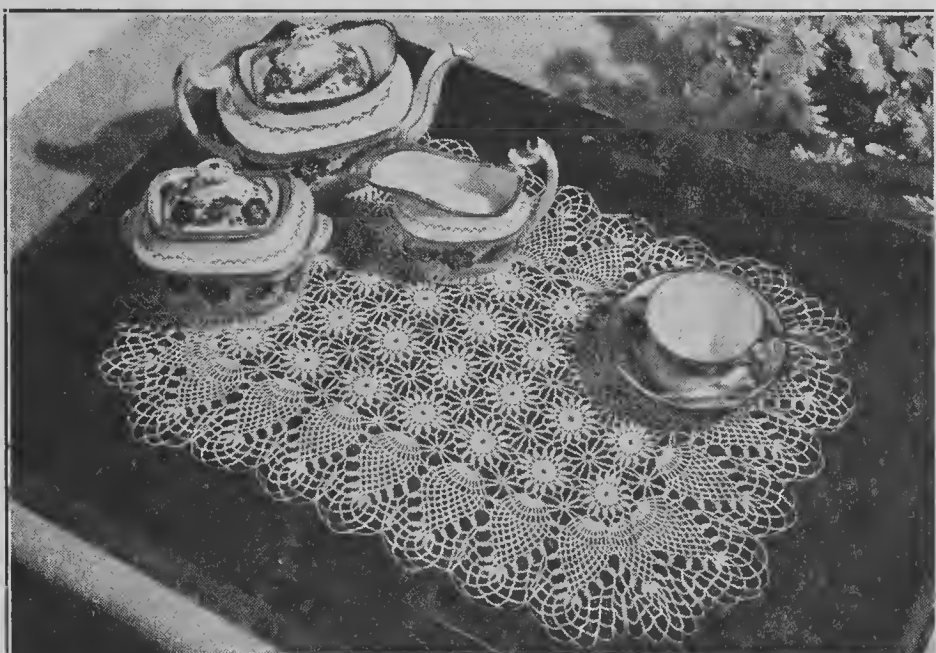
Easy to make for fall and winter
by ANNA LOREE

Design No. SE-3063

If you are slim and willowy you will look your prettiest in this ribbon-trimmed felt skirt. Make it now to wear to school, to work or for informal evening wear. It takes only a few hours to make for no hem is needed. It is a full circle of light-weight felt trimmed with a contrasting color. A flannel, cotton tweed or light-weight wool may be used and the skirt worn over a full petticoat. You will need 4 yards felt 36 inches wide (or 2 yards 72-inch felt), 22 yards one-inch gros-grain ribbon, a 7-inch zipper and thread to match felt and ribbon. Design No. SE-3063, Price 10 cents.

Design No. E-1938

Add a touch of color to your kitchen with little work by making these gay potholders of chintz and sturdy cotton. The motifs are cut from the chintz with pinking shears, stitched close to the edge with two rows of machining. The edges are bound with bias tape. Make matching hot-dish mats for the breakfast nook in the kitchen. Materials required are scraps of chintz, plain cotton and cotton wadding and bias binding to contrast. Design No. E-1938. Price 10 cents.



Design No. 7853

This white or pastel crocheted tray mat is as sturdy as it is dainty in appearance. Each motif is made separately then joined by spokes of treble crochet. The pineapples, made separately too, are later joined to the cloth and the delicate edging added. It

makes a lovely doily or table center. Made in a bright color it can be used in the dining area of the kitchen. Finished size is 16 by 23½ inches. Materials required are four balls white or six balls colored size 30 crochet cotton and a No. 10 steel crocheting hook. Dainty tray mat is Design No. 7853. Price 10 cents.

Address orders to The Country Guide Needlework Dept., Winnipeg, Man.

4 Danish Bun Treats from One Basic Dough!

1. Apricot Turnovers



2. Raisin Rounds



3. Jam Strips



4. Cinnamon Braid



For Luscious Variety use New Active Dry Yeast

This rich Danish Bun Dough rewards you with 4 gorgeous treats out of the same oven! Successful risings with Fleischmann's Active Dry Yeast are the secret! So whenever you bake at home, be sure you have Fleischmann's on hand.



Needs No Refrigeration

BASIC DANISH BUN DOUGH

Measure into a small bowl

- 1 cup lukewarm water
- 3 teaspoons granulated sugar

and stir until sugar is dissolved.

Sprinkle with contents of

- 3 envelopes Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well. Sift together twice, then sift into mixing bowl

- 6 cups once-sifted bread flour
- ½ cup fine granulated sugar
- 1 teaspoon salt

Cut in finely

- 1 pound chilled butter or margarine
- 2 eggs
- 1 egg yolk

and stir into yeast mixture.

Make a well in the flour mixture and pour in yeast mixture; combine thoroughly. Knead dough in the bowl until smooth. Cover dough closely with waxed paper and chill.

Beat together slightly with a fork and hold to finish fancy doughs,

- 1 egg white
- 1 tablespoon cold water

Turn out dough on lightly-floured board.

Divide into 4 equal portions and finish as follows:

1. Apricot Turnovers. Roll out dough to 9 x 12 inches. Cut into 12 squares; moisten edges. Put spoonful of apricot jam on each square; fold into turnovers; seal; snip tops. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with chopped almonds and sugar. Bake in moderately hot oven, 375°, 20 mins.

2. Raisin Rounds. Cream 2 tbsps. butter; mix in ¼ cup brown sugar, 1 tbsp. flour, 1 tsp. grated lemon rind and ⅔ cup raisins. Roll out dough to ¼-inch thickness; cut into 2½-inch rounds. Moisten edges of half the rounds with water; place spoonful of raisin mixture on each one; cover with remaining rounds; seal; cut an X in top of each round. Place on greased cookie sheet. Cover. Let rise in warm place 15 minutes. Brush with egg-white mixture; sprinkle with sugar. Bake in moderately hot oven, 375°, 18 to 20 mins. Frost while hot, if desired.

3. Jam Strips. Roll out dough to 5 x 15 inches. Run strip of 2 tbsps. thick jam down each side, 1 inch in from edge. Moisten edges and fold over jam to meet in centre; seal. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with slivered nuts and sugar. Bake in moderately hot oven, 375°, 25 to 30 mins. While hot, spoon thick lemon filling down centre. Drizzle with frosting.

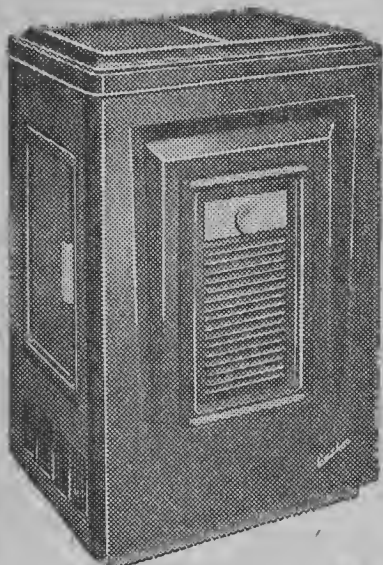
4. Cinnamon Braid. Combine ⅓ cup sugar and ½ tsp. cinnamon; sprinkle all but 2 teaspoonfuls on baking board; place dough on board; roll out to 9 x 14 inches; fold dough over twice. Repeat rolling and folding twice. Roll out dough to 4 x 16 inches; cut into 3 long strips, joined at one end; braid. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with 2 tbsps. chopped almonds and 2 tbsps. sugar mixture. Bake in moderately hot oven, 375°, 30 mins. Spread hot braid with frosting.

CONFECTIONER'S FROSTING: Combine 1½ cups sifted icing sugar, 2¼ tbsps. milk and ¼ tsp. vanilla.

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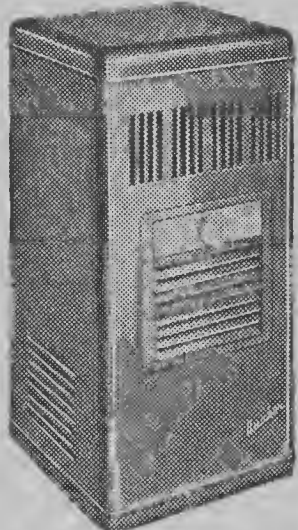
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It's in a Bag

Ideas to save time and effort

TODAY we buy anything from biscuits to potatoes in tough, transparent, polythene plastic bags. Most housewives have discovered that these bags are wonderful for storing things in the refrigerator. Some women claim that the best way to keep bread fresh is to put it in the "frig" in one of these bags.

Make a practice of keeping all polythene bags which may come your way. They make excellent dust covers for stacks of plates, glass dishes or other china, which are not in everyday use, which you may wish to store on cabinet shelves. The bags may be cut to size, if too long. They are easily washed in warm, soapy water, and will save you both time and effort by keeping your extra dishes ready for sudden and unexpected use.

The silverware you polish up for special occasions such as holiday festivities will stay that way if you store it in a polythene plastic bag. Squeeze as much air as possible out of the bag and twist the top edges tightly together, then with cord or a rubber band fasten the loose end tightly. Because the plastic is air-tight, the silver will not tarnish. But do not use rubber bands if the bag is to be laid near other silver, as rubber marks silver.

You will also find old plastic tablecloths useful. Use them as a "throw" over a trunk or other boxes in a storage room, outside shed or balcony. They catch dust and keep it off surfaces which you otherwise would have to clean frequently. When you want to get into the trunk or box, pick the cover off carefully by catching it by the four corners. Shake before replacing. To wash these dust catchers, immerse them in soapy water in the bath or laundry tub. Be sure they are quite dry before replacing.

A reader friend from Quebec, Mrs. M. McCagg, sends along the following five useful hints:

Those pliofilm vegetable bags make handy moth-proof containers for small woollen articles such as gloves, socks, mittens, a child's undergarments, etc. You can readily see what is in them and they are easy to store.

Old toothbrushes come in handy for cleaning hard-to-reach places about the kitchen range. And for polishing silverware, which has a raised or engraved design upon it.

In making apple jelly, I add a few drops of red vegetable coloring to improve the color. It also gives catsup or chili sauce a more attractive appearance.

Old discarded powder puffs make good "shiners" for silver or brass articles. Keep a couple in the shoe shining kit box, for applying polish smoothly and quickly. Or you can keep a discarded powder puff, along with your sink-cleaning materials. They are handy to use along with scouring powder to give a final "slick" polish to the sink or to pots and pans.

And while speaking of polish and of saving yourself work: try using paste wax, such as you use for floors or woodwork for other items. Wax

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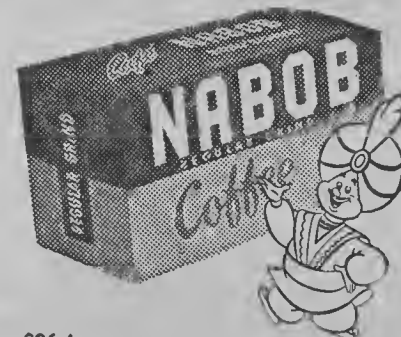
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your dustpan, waste basket, or interior of the garbage can liner. The dirt will slide off easily. If you wish to prevent bothersome "sticking" of desk or bureau drawers, try coating the sliding edges, and the base with wax.

* * *

Try waxing new shoes, before they catch either dust or moisture, with a thin coat of wax. It acts as a protector to leather, the finish will last longer and they will be easy to polish.

* * *

Vases and bowls often leave scratches on a table and spot the polish. This can easily be prevented by sticking a piece of felt, exactly the size of the bottom of the vase on its base. The felt also serves to prevent the vase from falling over easily.

* * *

Flowering plants in the window add an attractive touch but frequently the containers mar or roughen the window sill. To protect the natural or painted wood, have a piece of window glass cut the desired width and length to fit the sill, or just wide enough to accommodate

the widest flower pot. If still further protection is desirable, paste a strip of felt on the underside of the glass.

* * *

After addressing parcel labels, let the ink get quite dry, then rub a slightly warmed candle over the writing. Then if the weather is wet, and your parcel should be exposed to rain, the ink will not run.

* * *

Going through some old files we found the following idea, offered seriously: "To make a splendid polisher, put an ordinary flatiron inside an old wool sock."

Sounds like a frightfully laborious way to get a polish on a floor! It does remind us, that we are making progress in saving labor in housework. All housewives may not possess an electric polisher but most use long handled brushes or mops, and so save aching back and arm muscles.

Wonder what has become of all the old flatirons! No doubt some are used for door props, others for weights on top of covers to tubs of pickles or meat in brine.

Salt Has Many Uses

by MARGUERITE M. TOLTL

WE all know that salt is one of the essential foods. We know how valuable its use as a seasoning in almost everything we eat. It is common knowledge that salt is one of the vital minerals that our body must have to build and maintain good health.

Salt has many other uses. If the whole truth be made known we would realize that this inexpensive ingredient can serve more practical purposes in our daily lives than any other single item on our kitchen shelves.

Salt is a veritable wonder worker to use when a waffle iron is sticking. Just let the waffle iron get hot, pull out the plug, then fill the iron with salt and let stand for 24 hours. Open the iron, brush out the salt and your waffle iron will again bake smoothly and freely without a trace of stickiness.

An electric iron can be cleaned also with salt. Sprinkle salt on a piece of waxed bread paper, rub the iron over it while hot and all trace of starch and other soil will be removed.

For cleaning copper utensils, dip half a lemon in salt and scour briskly. Let dry, then rinse the article in hot water and polish with a clean, soft cloth. If a number of copper utensils are to be cleaned it is advisable to make a paste of one-half cup of salt, one cup of vinegar and enough flour to make a workable paste. Rub this paste briskly onto the utensil until thoroughly coated. Let dry. Rinse and polish as above.

Salt will remove tea stains from the finest china. Simply rub the stain with salt and it will disappear.

Salt is useful in the laundry, too. To make linens glossy and prevent starch from sticking to the iron, add a teaspoon of salt to the hot starch solution.

In the dry cleaning department, salt can be used in the cleaning of artificial flowers. Put salt in a paper bag—the amount depending on the number of flowers to be cleaned; then place the

flowers, head down into the bag of salt. Shake well. The salt brushes the dust off the flowers and absorbs it and when the flowers are shaken thoroughly in the fresh air to remove the soiled salt, they will look fresh as new.

For cleaning white fur, mix equal parts of salt, white cornmeal and flour. Rub well into the roots of the fur. When clean, shake out into the fresh air. The soil will come out with the salt mixture.

Salt has a place, too, in the medicine cabinet. It is effective in relieving a sore throat. Dissolve one-half teaspoonful in one-half cup of warm water and gargle frequently until soreness is gone.

Roasted salt makes an effective poultice to relieve throat soreness. Place two heaping teaspoonfuls of salt into a saucepan and brown in the oven or on top of a burner. Place while warm between two pieces of flannel cloth and apply to the throat. Leave on overnight. In most cases the soreness will have disappeared by morning.

Salt is also effective in relieving the pain of burns and preventing scars from forming over a burned area of the skin. Rub butter or petroleum jelly on the burn and cover with a coating of salt. The pain of the burn will be relieved almost immediately.

For icy walks, sprinkle salt generously on the slippery spots. It is much more effective and much cleaner than the use of ashes for this purpose. Salt can also be used as a drain cleaner. Pour one cupful of salt into the clogged drain. Pour on a kettleful of boiling water and let stand. The result will amaze you.

The next time you have the misfortune of having food boil over in the oven, a generous coating of salt, applied immediately, will absorb the burning odor and smoke. The salt will also absorb much of the scorched stickiness of the burning food allowing the burned mass to solidify so it can be lifted out easily when the oven cools.

Having a party? Please everybody...

Serve

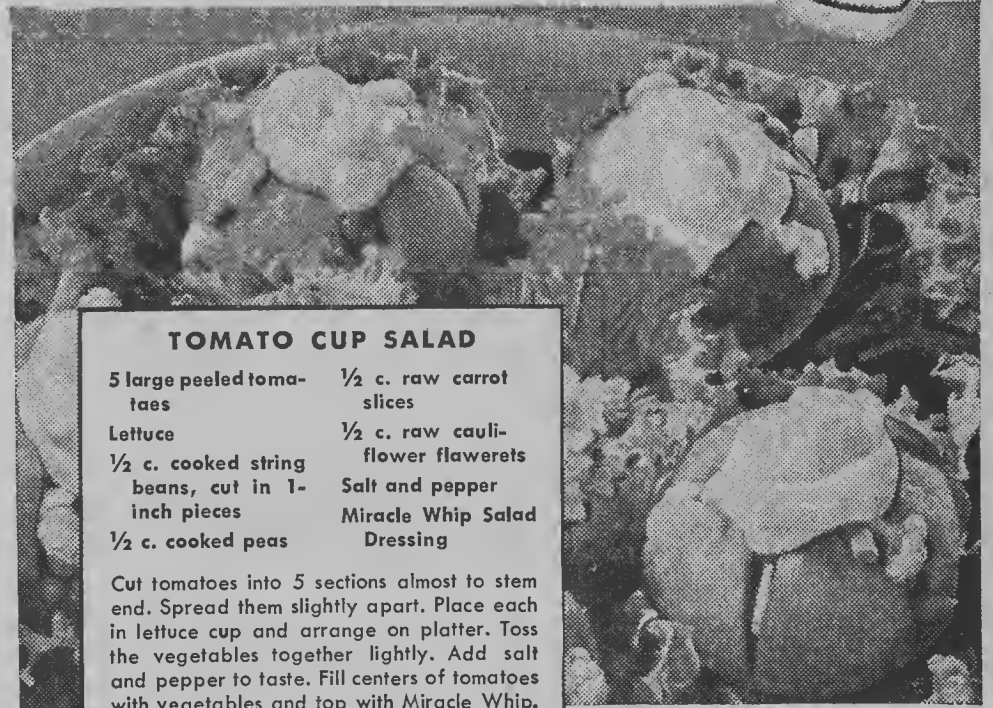
Tomato Cup Salad

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Save the 16-oz. and 32-oz. jars for canning



TOMATO CUP SALAD

5 large peeled tomatoes	1/2 c. raw carrot slices
Lettuce	1/2 c. raw cauliflower flowerets
1/2 c. cooked string beans, cut in 1-inch pieces	Salt and pepper
1/2 c. cooked peas	Miracle Whip Salad Dressing

Cut tomatoes into 5 sections almost to stem end. Spread them slightly apart. Place each in lettuce cup and arrange on platter. Toss the vegetables together lightly. Add salt and pepper to taste. Fill centers of tomatoes with vegetables and top with Miracle Whip.

Millions prefer Miracle Whip

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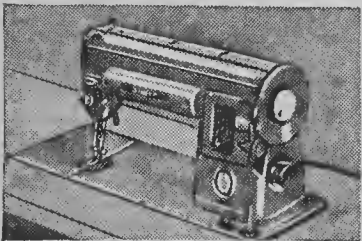
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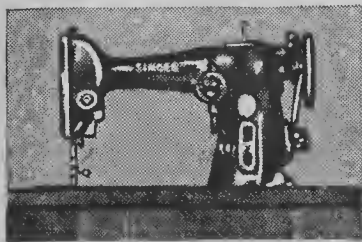
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The Countrywoman

Continued from page 59

equilibrium: a little bit of physical pain or anxiety; an unexpected concentration of work; a salary cut or a quarrel with one on whose love we depend emotionally. Any disturbance in our normal life routine may result in a new feeling of dependency and in an effort to find a new equilibrium. Whether he will be able to help himself or will need help then, depends on the total situation; the whole configuration of inner resources and outer stresses. Even the strongest man will break down under too heavy stresses.

To a less degree all this is true also of groups. The pooling of human resources in the group enables it to solve its own problems much longer than the individual. The greater the group, the greater its resources. The stronger the group is tied together emotionally, the greater the outer pressures it will be able to face unaided—and for the group too, it is true that under too heavy pressure, even the strongest will break.

D.R. DE JONGH confessed that he is sometimes puzzled by the paradox, that some of our western people look with an element of sentimental jealousy to the people in the East because so much real community feeling and real brotherhood still exists there. Whereas at the same time the modern intellectuals of those same eastern countries seem to be obsessed by a secret longing for our great western social structures, which to them seem to be the ultimate ideal of civilization.

"There is a danger in expecting too much self-help. It can be cruel or paralyzing to expect a man to help himself when he has to fight against too heavy odds . . .

"We must be aware that asking for help may be a sign of weakness, of self-complacency—but it may also be a sign of strength—the strength to evaluate rightly one's own resources and the difficulty of the reality . . .

"It seems to me that one of the main issues of social work has always been to help those who more or less have become at odds with society: criminals, alcoholics, unmarried mothers, neurotics. Society allows social work to help the individual to come back and make peace with that order.

"Sometimes we seem to forget that the family is more or less our last line of defence in the battle against the destruction of community life in modern society. Family life is affected most strongly by the decline of the greater community and we shall never be able to grips with the demoralizing effects of industrial and urban civilization.

"If it is true that modern society requires of its members a greater capacity to solve new problems and adapt to new people . . . what else can we do but to adapt our educational system to these demands. It seems to me that problem-solving and learning to work and live together with other people should be much more central in our educational purposes and systems than they are, at least in most of the European countries. Our actual knowledge is largely an answer to the problems of former generations and of our own generation . . . But youth will encounter other problems and will have to find its own solutions to them."

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4813

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4769



4808



4828

4802

4807

No. 4813—Shirtwaist blouse has shaped back yoke and center pleat, man's shirt collar, long sleeves and french cuffs. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires $2\frac{1}{2}$ yards 36-inch or $1\frac{3}{4}$ yards 54-inch material. Price 35 cents.

No. 4808—Versatile empire-styled jumper has two skirt styles—flared or slim. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 requires $3\frac{7}{8}$ yards 36-inch or $2\frac{1}{2}$ yards 54-inch material. Price 35 cents.

No. 4804—Half-size slim dress for women five-foot-three or under has imitation front closing, sleeves in one with bodice and close-fitting neckline with flaps that button back or across the front as you wish. Sizes $12\frac{1}{2}$, $14\frac{1}{2}$, $16\frac{1}{2}$, $18\frac{1}{2}$, $20\frac{1}{2}$, $22\frac{1}{2}$ and $24\frac{1}{2}$ (31 to 43-inch bust). Sizes $18\frac{1}{2}$ (37-inch bust) requires $4\frac{1}{8}$ yards 36-inch material, $\frac{5}{8}$ yard contrast. Price 35 cents.

No. 4798—Trim shirt dress has cuffed bat-wing sleeves, bloused back beneath a pointed yoke and slim skirt with front pockets. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires $4\frac{3}{8}$ yards 36-inch or 3 yards 54-inch material. Price 35 cents.

No. 4828—Simple, youthful dress has detachable collar; sleeves are in one with bodice; 101-inch skirt is gathered at waist. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 requires $4\frac{5}{8}$ yards 36-inch or $2\frac{7}{8}$ yards 54-inch material. Price 35 cents.

No. 4802—Shirtwaist dress for all figures has six-gore skirt, shaped front yoke and long or short sleeves. Sizes 12, 14, 16, 18 and 20 years; 40, 42 and 44-inch bust. Size 20 requires $3\frac{7}{8}$ yards 39-inch even length-wise striped material. Price 35 cents.

No. 4807—Slim shirt dress has unmounted sleeves, straight collar and buttons part way down skirt front. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires $3\frac{7}{8}$ yards 36-inch or $2\frac{5}{8}$ yards 54-inch material. Price 35 cents.

State size and number for each pattern ordered.

Note price to be included in order.

Write name and address clearly.

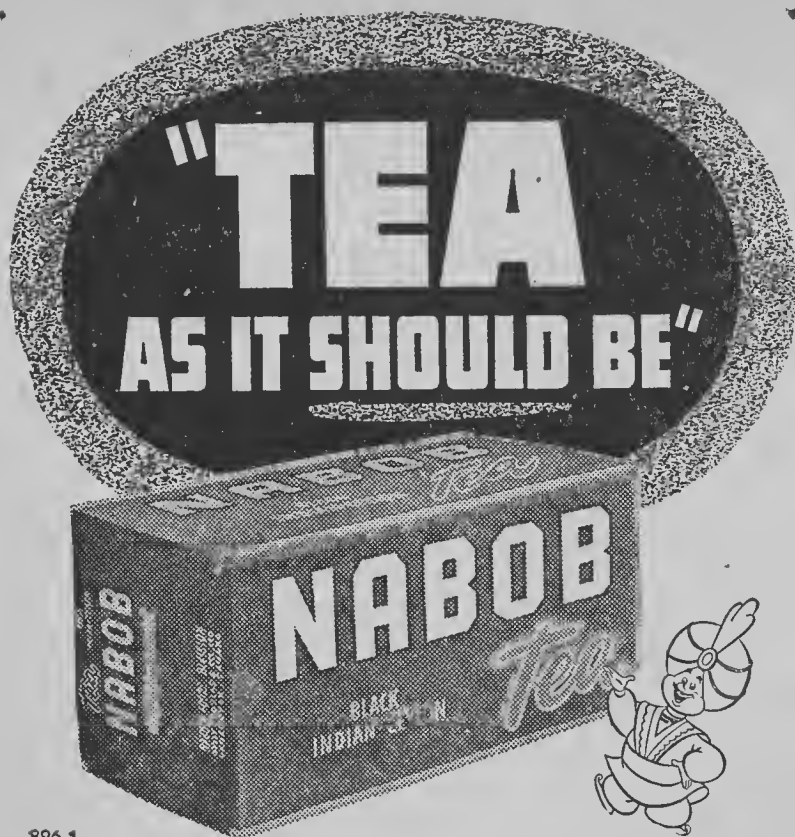
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4798



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Farming To Music

by DON MEADE

WHAT could be more natural than farming to music? One farmer on Lulu Island, British Columbia, makes it pay. At least, part of his farming, the picking of blueberries, is done to music.

Because many of his hired berry pickers were children, home from school for summer holidays, the Lulu Island farmer said it was difficult to keep them on the job like adults. He got the music idea one day when some of the children started to sing in the patch.

While they sang, they stayed in one place, picked cleaner berries and filled more pails. To let them know it was all right, he sang with them. From that time on, if the children wished to sing, he encouraged them.

When you come to think of it, what's wrong with music on a tractor, in the stable and other buildings? For a long time now, music has been listened to in places of industry. Some railroads now use two-way radios to direct the movement of cars in terminal yards. They're even installing TV sets to watch what goes on in the yards.

Perhaps, when a balky tractor has to be cranked on a cold fall morning, a little music from a built-in radio would help to ease the pain of barked knuckles and frayed nerves. Some will say they couldn't keep their minds on work if a radio played. That argument would be nipped in the bud, because, every day, motorists dust down busy highways at sixty, radios going full blast.

Having a two-way radio on the tractor would facilitate farm work. The farmer could direct hired men who worked in fields half a mile

A preacher who had forgotten his sermon notes: "As I have forgotten my notes I will rely on the Lord for guidance. Tonight I will come better prepared."

away. At noon, he could connect with the farmhouse to enquire about dinner. That would save time lost from going home too early. His meals would be hotter and his wife more pleasant.

Not many wives would object to a tractor radio, because, for years women have been doing housework to music. Some insist that they need music to keep time to sweeping, dusting, or mopping the floor.

Many farmers believe that music is good for animals. Listening to soothing music will make a hen lay more eggs and a cow give more milk, they say. In these modern times, there are few who will contradict that.

Mechanization of farms will go on, no doubt, until something along these lines is done: Who knows, perhaps in years to come clock radios will start feeders in the morning—and for that matter, start machinery that does all the heavy work. If they haven't already done so, machinery companies may soon sell tractors and other mobile machinery units complete with built-in, two-way radios. That would be no more ridiculous than railroad com-

panies, who now find it profitable to put two-way sets on trains so the conductor in the caboose can talk to the engineer up ahead on the engine.

If that happens, like the Lulu Island farmer, farming will become more and more dependent on the soothing effects of music. V

Nuts for You

Continued from page 13

could not be completed, nuts came off the ground in the spring as crisp and tasty as the year before. Unlike fruit, nuts do not have to be picked. Just shake them down and pile them up with an ordinary garden rake.

Nut harvesting begins in September. First, the nuts are husked, then machine-blown to remove leaves and dust. Next comes grading and washing. One Lulu Island farmer dries the nuts in a shed for one week before trucks haul them to market in 60-pound bags. On larger farms, expensive dry kilns and harvest machines hull, wash and dry the sweetmeats. As with other farm products, the farmer who is most meticulous in preparation of nuts for market gets the best price. Last year, for the first time in B.C., Fred Seifred of Aldergrove operated a new nut harvester with satisfactory results.

IN the past, when properly dried and cleaned, filberts were sold through brokers for 20 to 21½ cents per pound. These nuts went into prairie homes as far east as Winnipeg. Some nut farmers who tried individual marketing, took less. This, says Mr. Aish, is one of the worst marketing bugbears growers have had to face. Now, however, Fraser Valley and other B.C. farmers stick closer together, and consequently get a better over-all price from reputable brokers.

Another help to nut producers was a recent federal government move to re-classify filberts produced in Canada. This gave dump-duty protection on certain imported varieties, to brighten the whole nut-growing outlook.

According to a lady nut farmer, housewives can use Canadian filberts in cakes just the same as almonds, walnuts and brazils. Fried in butter and seasoned with salt, they make a tasty morsel. Because nuts contain so much protein, they supplant other foods that are rich in vitamins B and C.

Now that nut growers have whole orchards at peak production and more growing for the years to come, they believe that the industry will boom. Nuts are still in demand and lower eastward freight rates will enable farmers to ship to new markets.

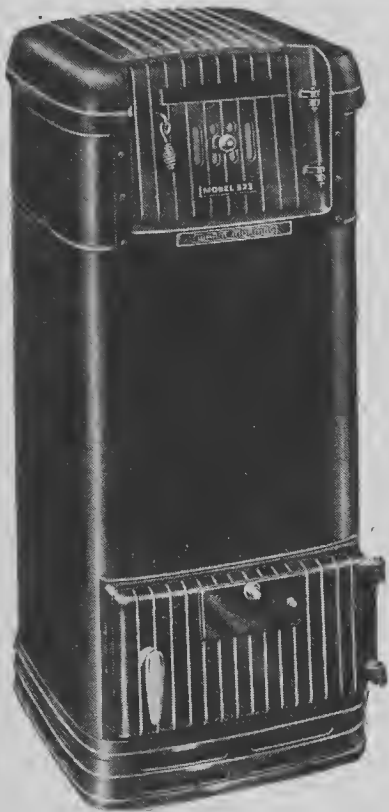
Thanks to growers like Mr. Gelatly in the Okanagan and big nut farmers in the Fraser Valley, as well as those on Vancouver Island, along the Pacific Coast, north to Bella Coola and across the interior to Revelstoke, beginning nut farmers will now have an easier row to hoe. Through experiments of the pioneer growers, a way has been cleared so that Canadians from coast to coast will soon enjoy better and cheaper sweetmeats than can be obtained from foreign markets. V

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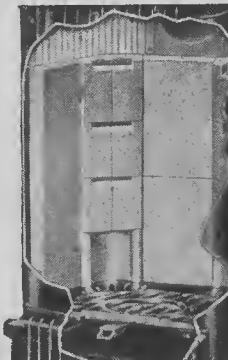
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Interior view of Model 523 showing firebrick flues and lining.



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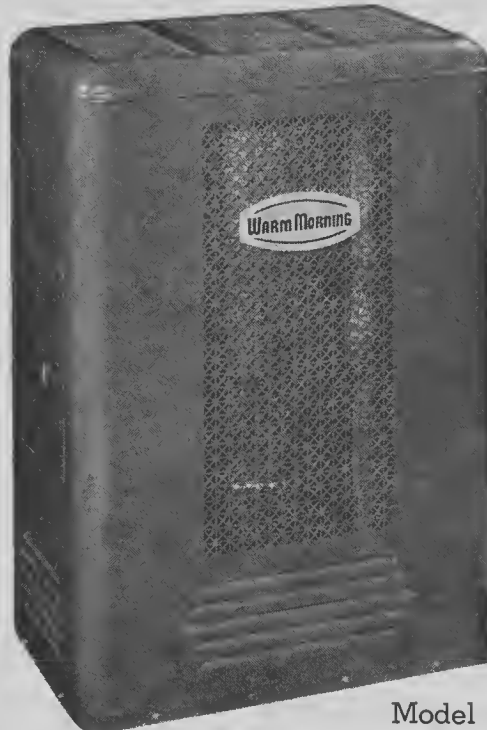
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Canadian Forage Seed Project

A plan is now in operation across Canada for increasing supplies of high quality seed of preferred forage crop varieties

by R. E. McKENZIE

PRAIRIE farmers are pretty fussy about the grain varieties they use. They know that Thatcher wheat will grow more bushels than Marquis; that Chinook outyields Thatcher if there are sawflies; and that Selkirk does best if 15B stem rust is bad. It is hard to imagine a western farmer seeding a bag of wheat, without knowing whether or not it is a variety that does well in his district. But when it comes to forage crops, farmers don't give a hoot. Brome grass is brome grass and as long as it is fairly free from couch grass and will grow, commercial brome will do.

When a farmer buys alfalfa, he seldom asks for a particular variety. Plain alfalfa is 'good enough, and yet there are 12 named alfalfa varieties licensed for sale in Canada.

Most farmers are well satisfied to grow common yellow or common white sweet clover, but in this crop there are eight named varieties licensed for sale. In timothy, there are ten licensed varieties.

Why are farmers so little concerned about using named varieties of forage crops? Why don't they insist on a particular kind of brome, or crested wheatgrass, or alfalfa, as they usually do with grain crops? Take alfalfa varieties for example. Ladak alfalfa was introduced to Canada nearly 20 years ago. All the tests comparing this variety with the old Grimm, or commercial alfalfa tracing back to Grimm, showed that Ladak produced 10 to 15 per cent more hay, was hardier, and stayed in longer if bacterial wilt was present. This variety was a big improvement over commercial alfalfa, but that didn't do it much good. A strong demand never developed for Ladak, so seed supplies were not produced in quantity. The same thing has happened to many other superior forage crop varieties, some of them produced after many long years of careful plant breeding.

PART of the reason that farmers give so little attention to forage crop varieties is that grassland farming, particularly in western Canada, has not yet developed as a specialized business, as it has done in Great Britain, New Zealand and some parts of the United States. In New Zealand, grassland farming is a highly specialized science, about which New Zealand farmers know as much as our farmers know about wheat. The New Zealand grassland farmer buys named varieties of grasses and clover—those which have been proved best for his conditions. He may use several varieties on different parts of his farm, according to how he plans to use his grass during the season.

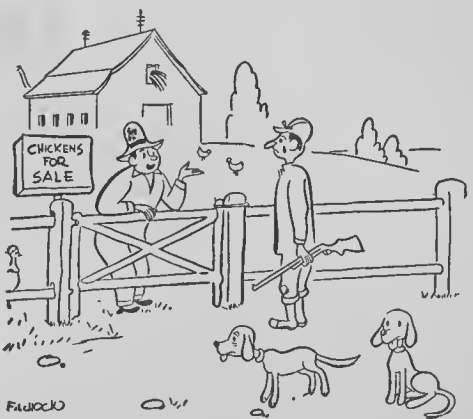
We are not this far along in western Canada, but are making a lot of progress toward using more forage crops, even in the wheat province of Saskatchewan. Since 1947, when the Saskatchewan Department of Agriculture began its Forage Crop Program, nearly 20,000 farmers and ranchers have bought forage crop seed for

300,000 acres. Most of this seed has gone out as recommended grass-alfalfa mixtures. Prior to this time alfalfa was used but little in mixtures, and grasses such as brome and crested wheat were sown alone. The resulting yields were usually low after the first crop, and livestock producers were not too enthusiastic about seeding cultivated forage crops. Research information showed that if a small amount of alfalfa was included in mixtures with these grasses, yields would be doubled and the feeding value of the hay or pasture much improved. Through emphasizing the use of grass-alfalfa mixtures on the Forage Crop Program, most farmers who have tried these mixtures now realize that they can grow forage crops at a profit and have better grain crops after plowing up the stand.

When university and Experimental Farm Service plant breeders develop improved forage crop varieties, it is unfortunate if these varieties cannot be put into practical farm use. If, as has happened in the past, the new variety gets no further than official licensing, much time and money has been lost.

A FEW years ago in the United States, they started to do something about getting new forage crop varieties into farm use through a seed increase program. Under sponsorship of the United States Department of Agriculture and with the co-operation of state agencies and the seed trade, new varieties such as Ranger alfalfa and Kenland red clover were placed under a plan to increase seed at the Certified level. Foundation seed from the plant breeding institutions was taken to selected growers for contract production. The program met with considerable success and several million pounds of seed were produced in short order.

Obviously there was need for a similar program in Canada, where named varieties of forage crops had been fading into oblivion for years. So, in 1952, the Canada Department of Agriculture undertook to sponsor the Canadian Forage Seeds Project along lines similar to the United States plan. A national committee was formed, consisting of representatives from federal and provincial departments of agriculture, plant breeding institutions, the Canadian Seed Growers' Association and the Cana-



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dian Seed Trade Association. The federal department agreed to underwrite the operating costs of the plan and the provincial departments undertook to find seed growers and publicize the merits of new varieties. At its first meeting, the committee decided that the three most important forage crops in Canada were alfalfa, red clover and timothy, and that named varieties of these crops should be increased from "foundation" seed.

In alfalfa, the old variety Grimm was selected, because of export demand, along with Climax and Medon timothy and LaSalle red clover. Climax timothy was developed at the Central Experimental Farm, Ottawa, and Medon was produced by the Ontario Agricultural College. Both varieties were better than common timothy, but seed supplies were very small. LaSalle red clover resulted from a combination of Dollard and Ottawa red clovers, two similar varieties which were definitely better than common red clover. Red clover is the most important legume in eastern Canada, but in many years, seed has to be imported from Europe; and often, the crop from this seed winter kills. LaSalle looked like a real boon to the eastern farmer, if seed could be grown in volume.

Foundation seed of these four crops, Grimm, Climax, Medon and LaSalle was bought by the Project and distributed under contract to selected growers all across Canada. The first crops were harvested in 1953 and the amount of seed produced was most encouraging. In LaSalle red clover, 253 acres under contract resulted in 41,000 pounds of Approved and Registered seed. Nineteen acres of Grimm alfalfa returned

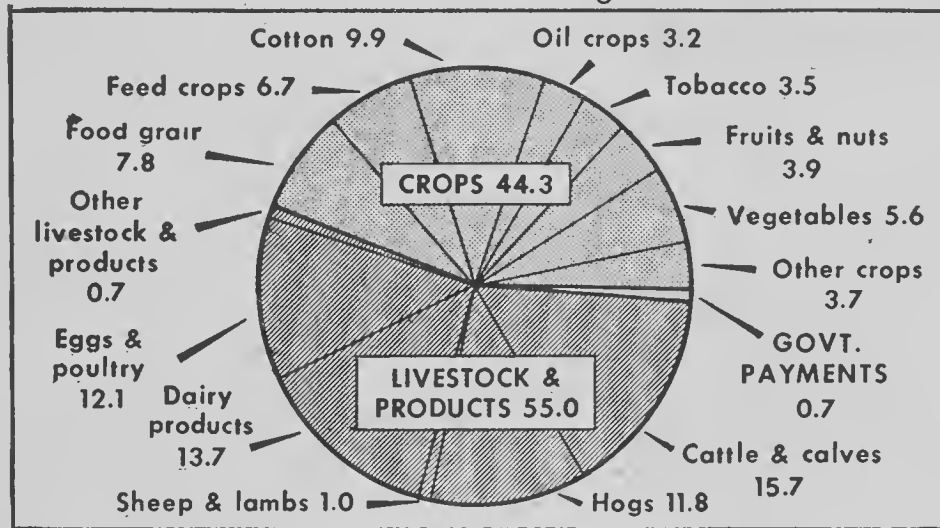
1,000 pounds of Approved seed and 61 acres of Climax timothy resulted in 12,000 pounds of seed.

At its 1953 meeting, the co-ordinating committee of the Canadian Forage Seeds Project decided to issue further contracts for these four crops. In addition, three other varieties were taken in under the plan. These were Summit crested wheatgrass, a new variety developed by the Forage Crops Laboratory at Saskatoon, which is higher yielding and taller growing than Fairway; Erector sweet clover, a good yellow flowered variety produced several years ago at the Brandon Experimental Farm; and Vernal, a new alfalfa developed in Wisconsin, which is showing some promise under Canadian conditions. Foundation seed of these crops was distributed to contract-growers in 1954. By 1955, Approved seed will be available with which Registered seed growers may start volume production.

The Canadian Forage Seeds Project represents the first large-scale attempt on a well-organized basis, to provide Canadian farmers with pedigreed seed of improved forage crop varieties. The Project aims at filling in the gap between the plant breeder who produces a new variety, and the farmer who should be using the variety. If the Project is successful in filling this gap, it will be doing a real job toward advancing grassland farming. Perhaps before too long, we will find farmers insisting that the seed they buy be Certified LaSalle red clover, Vernal alfalfa, Climax timothy, Summit crested wheatgrass or Erector sweet clover.

(Note: R. E. McKenzie is Field Crops Commissioner, Saskatchewan Department of Agriculture, Regina.)

Commodities as a Percentage of Total



Shown here graphically is a breakdown of U.S. farm cash receipts in 1953, shown in percentages of the total. Note that meat animals, dairy and poultry products combine to provide 55 per cent of all cash receipts.

U.S. Parity Prices and Farm Cash Receipts

SECRETARY Benson of the U.S. Department of Agriculture recently published five maps which indicated by states the distribution of farm income received from price-supported and non-supported farm commodities. Under U.S. price support legislation, wheat, corn, cotton, rice, peanuts and tobacco are supported by law at 90 per cent of parity as basic commodities. These six commodities are responsible for 23 per cent of U.S. cash farm income.

Non-basic commodities, such as dairy products, wool, mohair, honey, tung nuts, barley, oats, rye, sorghum

grain, flaxseed, soybeans, beans, cottonseed, and crude pine gum are responsible for 21 per cent of U.S. cash farm income. They are supported in general on a flexible basis, ranging from 65 to 90 per cent of parity. For some of these commodities, price support is mandatory on the part of the Secretary of Agriculture, and for some, permissive.

Income from the six basic commodities is concentrated in nine southern states, in addition to Kansas in the Midwest and North Dakota and Montana on the Canadian boundary. Five other states have less than one per cent of their cash receipts from these commodities. Other states have a very small percentage of their revenue from the basics: Wisconsin,

one per cent; New York, two per cent; Pennsylvania, six per cent; Florida, seven per cent; Iowa, eight per cent; California, 13 per cent.

There are sixteen states getting over two-thirds of their total cash receipts from non-supported products like meat animals, poultry, eggs, fruits, nuts, vegetables and miscellaneous crops. All but seven of the 48 states receive more than 50 per cent of their cash receipts from non-supported commodities and dairy products. These states include Arkansas, Louisiana, Mississippi, Alabama, South Carolina and North Carolina.

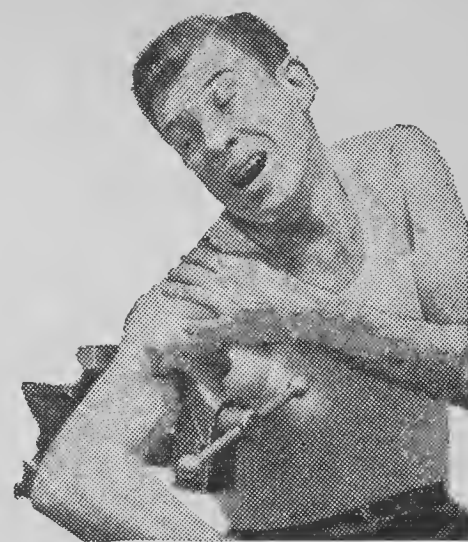
Fifty-six per cent of the total U.S. cash farm income is from livestock and livestock products. These are most important in most of the New England states and those grouped as Middle Atlantic, Cornbelt, Lake, Great Plains, and Mountain States. The U.S.D.A. suggests that stability of feed supplies and prices at reasonable levels are advantageous to this very large area and that feed price supports at a high fixed level add to production costs.

Notes from British Columbia

The Drama of the Disappearing Silo will probably appear again this fall on the farm of Ed Stickland, a North Okanagan dairyman. Last fall, he baled about five tons of straw. Using the bales as king-size bricks, he laid a circle of bales 16 feet in diameter and filled the form thus created, with corn silage. Repeating the process, layer by layer, he eventually had a straw-wall silo 16 feet high. Two of them took care of 90 tons of corn silage. As the silage was fed, the bales of straw also disappeared gradually for bedding, and by the end of January, Ed's unconventional silos had completely disappeared. They were reported as highly successful; the cost was almost nothing and the quality of silage was high. Except for a little waste around the outside, Ed reported the contents as being in perfect condition.

President D. R. (Danny) Nicholson, of the Fraser Valley Milk Producers Association, has reported that for the first six months of 1954, production by the Association increased 9.97 per cent over the same period last year. Despite the fact that both years were record years, farmer members had received a substantial reduction in net return; and responsibility was placed squarely on Milk Board Order No. 41, which decontrolled fluid milk prices, above the producer level, by encouraging competitive practices, such as selling carton milk at bottle prices, despite extra costs. The M.P.A. members received \$100,000 less from the fluid milk market, despite 93,000 pounds more butterfat. This was because 50 per cent of Association milk goes to the wholesale trade, where prices have been cut from 80 cents to 76 cents per gallon, plus a further two cents per quart for paper cartons.

Crock farming isn't as new as it may sound to you. It means growing Chinese bean sprouts in earthen jars, or tins, to meet the large demand of Chinese communities and of non-Chinese people for Chinese dishes in restaurants. The crock farmer can grow his crop anywhere, because it



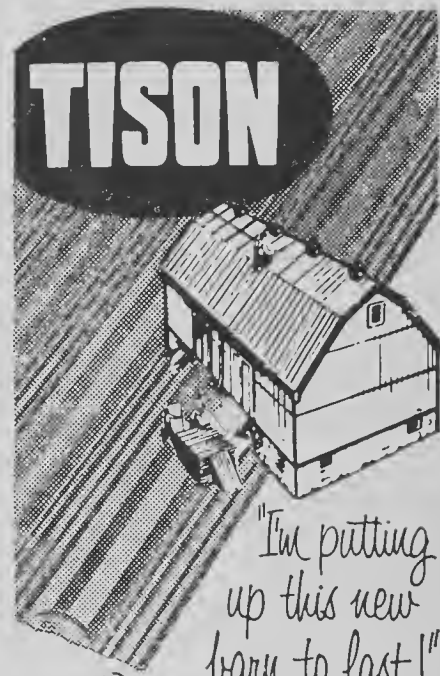
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needs neither sunshine nor soil. He harvests the crop every four days and doesn't worry about rust, frost, hail, weeds or bugs. Nevertheless, crock farming is as demanding as a new baby, because bean sprouts must be skillfully tended by hand, and carefully watered every four hours, around-the-clock. V

B.C.'s fruit harvest in the Southern Interior this year is confounding earlier forecasts. The cherry crop, last April, was thought to be virtually wiped out, but came through with flying colors. The frost really helped, and eliminated most of the cull fruit. This, coupled with cool weather into

the summer, increased both size and quality and put most of the cherries into the higher grades. Peach and apricot crops have followed the same pattern and apple growers expect the same good fortune will happen to them. Likewise the prune growers, who suffered a severe disappointment last season. V

Small fruit growers on the Pacific coast, were not as fortunate as the growers of tree fruits. A predicted bumper strawberry crop failed to develop, and despite heavy blossom and plenty of moisture, this year's crop was only about two-thirds as big as in 1953. V

Apple Juice No Money Maker

B.C. growers salvage some return from low-grade, non-commercial apples sold as vitaminized apple juice

by P. W. LUCE

OKANAGAN apple juice is a favorite drink in British Columbia. It has a steady sale throughout the year except in July, August and September, when the demand should be the greatest. The demand may be there, but the supply is exhausted. A new supply won't be available until early fall.

Apple juice is a by-product, but it isn't a profitable one. The growers do infinitely better by selling apples wrapped in tissue, than they do by catering to summer thirsts. They may not actually lose money on apple juice, but they come perilously near it.

Only one firm turns out the product in British Columbia, and there is no remote chance of competition. The juice is processed under the name "Sun-Ripe" by B.C. Processors, Ltd., of Kelowna, an offshoot of the B.C. Fruit Growers' Association. Practically every grower in the Okanagan belongs to this body, and as the selling of apples is done by B.C. Tree Fruits, a child of the Association, B.C. Processors naturally get all of the fruit that is destined for juice.

Forty per cent of the output is sold in British Columbia, and the remainder goes to Alberta, Saskatchewan, and Manitoba, in diminishing quantities. None is shipped east of Winnipeg, because of high freight costs.

Six hundred thousand cases were processed from the 1953 crop. While the quantity may vary from year to year, it is estimated that 2,000,000 cases a year could be marketed. Apples set aside for juicing represent from 20 to 25 per cent of the crop.

The fine big Okanagan apples are not turned into juice. The only fruit used are the "culls" and "diversions," which are either small and misshapen, or secondary surplus, for which an immediate market cannot be found.

Until about ten years ago any Okanagan apples which happened to be small, oversized, bruised, spoiled by insects, or in any way unappetizing, were a dead loss to the growers. If shipped to the coast on the off-chance of finding a depressed market they almost certainly would be rejected by the middleman, who would hold the shipper responsible for the freight and handling.

Some of the customers might be willing to buy cheap culls, but retailers

realized that the sale of these would have an adverse effect on the demand for better quality fruit so the potential demand was ignored.

There was only one solution for the grower — dump the apples. He did so. Knowing this would be regarded as a shocking waste by people outside the business, he did his dumping in the dark of night, but did not thereby escape caustic criticism, though no better solution of the difficulty was ever brought forward.

APPLE juice was first processed in the Okanagan in 1939, but the present manufacturing company, B.C.

Decline in Farm Prices

Canadian farmers are not alone in feeling the effects of a substantial decline in farm prices

BEGINNING in 1942 and lasting throughout 1953, western Canadian farmers have experienced a remarkable series of crop years. So far, 1954 has been a most unusual season, characterized by extremely difficult weather in the early part of the season, and the most serious rust epidemic since 1935. Along with crop conditions this year, farmers are also experiencing a continuation of the decline in the prices of farm products, which has been in progress since the very high point of 1951. This means decline in both gross farm receipts and net farm income—the first unpleasant, and the last definitely hard to take. Not only are the actual prices received by farmers becoming lower, but retail prices of foods are increasing, which means that the part of the consumer's dollar which goes for processing, marketing and transportation charges, has increased.

It isn't much satisfaction to know that someone else is also in trouble, but it is a satisfaction to know that there is nothing peculiarly Canadian about a decline in farm prices. On August 2, the Committee on Agriculture of the House of Representatives in the United States Congress, issued a report on "Farm Prices and the Cost of Food." Here are some items from this report:

Processors Ltd., was not formed until 1946. That year, 179,000 cases of apple juice were packed, and all were easily sold. The demand has been growing ever since, and has doubled in the past three years.

Some consumers complain that the retail price of 35 cents (39 cents in Winnipeg—ed.) for a 48-ounce tin of apple juice is rather high, compared with some of the imported juices. Pineapple juice is available at 32 cents, and grapefruit juice is on the shelves at 33 cents. Orange juice, which comes from California, sells for 38 cents a tin.

R. P. Walrod, general manager of B.C. Fruit Processors, explains why a home product sells for a higher price than an imported commodity. He says that at the 1953 prices, a case of 12 tins of vitaminized apple juice cost the consumer \$3.96 through most retail stores (\$4.20-\$4.32 in Winnipeg—ed.), and that it takes 20 medium-sized apples to supply the juice. The return to the grower is just over \$18 a ton, which is calculated to be less than half the cost of production.

It takes one ton of apples to produce 30 cases of juice, and the juice alone in a case brings only about 60 cents. The balance of the cost goes for containers, manufacturing, freight, and distribution. No effort is made to earn a profit, and nothing is kept back for reserve, except a small amount every year for depreciation.

There is no set price for culls or diversions. In the past the growers have received a payment in proportion to the quantity of first-class apples shipped to the regular market, and this will likely be the practice followed for some time in the future. V

Between 1946 and 1951 farm prices rose 29 per cent and retail prices 45 per cent. Since 1951, peak farm prices have fallen 20 points, while retail food prices are at about their 1952 peak.

The peak price of wheat, in January, 1948, was \$2.81 per bushel, and the average price of a one-pound loaf of bread was 13.8 cents. Today, the farm price of wheat is \$1.91 while a loaf of bread has increased to 17 cents. The wheat in a one-pound loaf of bread is worth 2.7 cents.

Late in 1947 the farm price of the corn in a 12-ounce package of corn flakes was 4.5 cents, and the average retail price, 16 cents. In the first quarter of 1954, the corn in the package had dropped to three cents, and the retail price jumped to 22 cents.

Similarly, in late 1947 the oats in a 20-ounce package of rolled oats were worth six cents at the farm, and the retail price was 15 cents. Today, the corn value has dropped five cents and the retail price increased to 18.5 cents.

Farm prices for milk and butterfat in June this year were ten per cent below the 1947-49 average, but retail prices of dairy products were three per cent higher.

Out of the dollar spent by the American housewife for food pro-

duced on American farms the farmer receives 44 cents while 56 cents goes for processing, marketing and transportation charges. Of the 44 cents the farmer receives, approximately 30 cents goes for the costs of production, leaving the farmer and his family about 14 cents out of each consumer dollar for their labor and interest in their investments.

During the last 20 years, retail food prices have not increased as much as the hourly earnings of industrial workers. Since 1948, the hourly earnings of industrial workers have continued to increase, while retail food prices have levelled off, and farm prices declined almost 20 per cent. Industrial workers can now buy

more food with one hour of labor than in any other period in history.

Other information not contained in the report to the Congress indicates that since 1948 the real income of the farmer, adjusted for changes in the cost of living, has declined 27.9 per cent. On the other hand, the real income of the farm worker has increased 6.5 per cent, the railroad worker 8.8 per cent, the retail trade employee 9 per cent, the factory worker 12.5 per cent, the government worker 12.6 per cent, and the school teacher 15.4 per cent.

If it is really true that misery likes company, it appears that Canadian farmers who feel miserable, have only to cross the international boundary to find the desired company. V

The Little White School

The three R's are not enough for children today, but they are just about all the sturdy little white school can offer

by SALLY MARTIN

WHILE the subject of education today and education in the past rages up and down the country, a little old school stands calmly through the storm, just as it has done for scores of years. Built on a very high hill that affords the teacher a fine view of the surrounding country, the little school has weathered the storms, winter and summer. One hail storm broke all the windows in 1924, but that was a mere detail.

With the exception of a few repairs that were absolutely necessary, such as replacing broken windows, patching up the foundation when a stone fell out, and, in 1953, shingling the roof because it leaked badly and half the old shingles had "gone with the wind"—literally—the original building remains the same.

It was built with plenty of windows—in the wrong places. All the windows are on the north and west; six on the north side—great tall windows that are so high no one has ever ventured to clean them. In the community cleaning bees, the ladies refuse to risk life and limb, so they stay dirty on the outside. In the summertime, the sun really beats in on the backs of the children as they bend over their desks. As for blinds, there just "ain't any."

There are quite good blackboards and, now that the attendance is low, enough seats. Last year a new chair and desk appeared for the teacher. She had been there the year before,



"I used to worry about dates, too, and what did it get me?"

and it must have been a pleasant surprise to find the new equipment.

As for the teachers, they come and go like the men in "The Brook." Some have stayed for two years; one did stay for four years, long ago. When teachers were so plentiful, a secretary-treasurer often had 200 applications for the position of teacher in a rural school. Then, a teacher hung onto a school because she found it so hard to get another. Seems strange to think of—and only about 20 years ago, too!

The majority have been permit teachers during the last ten years. The teacher last year was qualified and on her second term, but retired at the end of the year. The Department of Education finds the teacher. As the school is isolated in winter, when the roads are blocked, it is increasingly difficult to induce teachers to take the school, especially if they come and see it first.

WHEN we look around the country and see schools still in the same condition that they were started in, it is no wonder that books get written, and well read, on the subject of education. One good thing is that there are very few schools that have so little modernization as the Little White School. A report from the Department of Education lists five schools in Manitoba as operating on the same set-up they started with, away back when.

Lack of improvements has not kept the children from learning the three "R's." While not all who finish public school go on to take higher grades at other schools, many do take correspondence courses and get at least junior high; and some go through all the grades and on to Normal. One or two have come back to teach in the little school. Some of the teachers, over a period of 40 years, have become well known men and women.

SOME of the children have such a long distance to go to school, poor tikes! Little boys and girls of six years should not have to walk three, three and one-half, or four miles to school. But they do. In many cases they come from poor families, who have a struggle to feed and clothe them. Things are a little better with the

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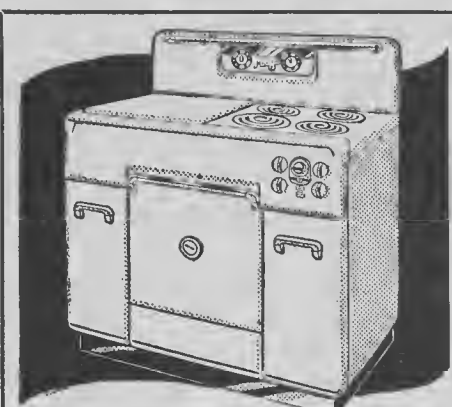
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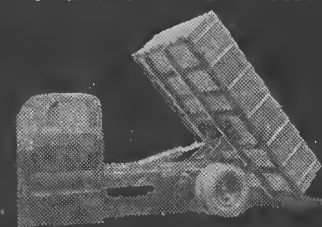
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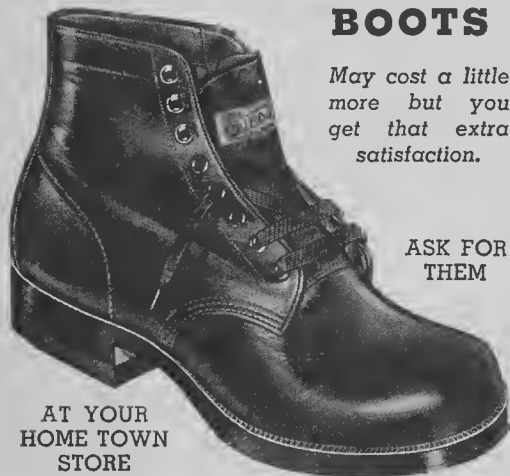
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AROUND THE END of the last century, when aluminum was practically a precious metal, a famous racing stable had one of its thoroughbreds shod with racing plates of the weight-saving material. They were made at Tiffany's, the famous New York jewellery house.

Nowadays it is standard practice for race horses to run on aluminum shoes. Since the turn of the century the price of aluminum has been reduced to the point where it is now one of the most economical of all materials, extensively used for things like barns and boats and bus bodies. Aluminum Company of Canada, Ltd. (Alcan).

family allowance to help now, but in the past, some of the pupils who went to the little school did not worry too much about "So Little for the Mind," when there was not enough for the body. Today, with the high cost of boots and biscuits, a working man with a family of eight has to work early and late to keep his family clothed to go to school. In Manitoba, children must have so many clothes to go over three miles to school. The walking wears out shoes; the weather demands different changes of footwear, warm for one season, dry for the next. Small wonder the poor districts have never got around to building a better school!

The well-to-do farmers have small families; the poor parents, large. The man who said "The rich get rich, and the poor get children," wasn't funny.

But that keeps the old school—in this case—standing stoutly on the hill. There it waits to welcome the pupil; to give him or her a chance to go on to school and get something better than the poor life they live; to educate them, not with modern equipment, nor in comfort, but with the bare necessities, so they can have a foundation to build as strong a frame as the little old school has had.

It had to be strong and stout. The winds come shrieking out of the north, south and west to make the old building tremble, but, high on the hill, the White School has been a beacon to four generations of children. Nothing fancy like a neon sign, just a candle, but to beckon nonetheless to all the little six-year-olds, "Come in, kids, and learn 'readin', 'ritin', 'n 'rith-metic'."

Notes from Down Under

They do things differently and have different problems, but their aims are much the same as our own

Seven Jersey farms occupying one square mile of irrigated land at Tongala, Australia, in one year produced a total of 104,299.5 pounds of butterfat, which returned £26,464 to the producers. The average butterfat per acre was 163 pounds, and the average return £41/8/7. This is a higher butterfat yield than the "Jersey Acre," which topped a New Zealand survey.

Land values in some parts of South Australia have risen more than 300 per cent since price control was lifted in 1948. Farmers have been warned that raising prices to keep pace with land values might cut Australia out of her world markets.

Twin chickens—a rarity—were born on the farm of Mrs. B. K. McDougall of New Angledool, New South Wales, and thrived. Last February, a newly laid double-yolked egg was placed in an oven and a short time later two chicks emerged, small, but strong and well formed. Mrs. McDougall fed them on rolled oats and milk and at last report they were pullets ready to lay their first eggs. The only other twin chicks reported from double-yolked eggs in Australia, died soon after hatching.

It's either a drought or a deluge in West Australia and neither is good for the sheep industry. While sheep were drowning in swollen West Kimberley streams, thousands more were facing starvation in the drought-stricken areas of the Murchison and eastern gold fields. Drought conditions have existed in a wide belt stretching in a semi-circle from the Indian Ocean, north of Geraldton, to Eyre on the Great Australian Bight. Upwards of 30, properties in the belt, which last year sheared 177,000 head, were expected to muster only 80,000 head this year. At last report, an effort was being made by owners and government officials to save the remaining 80,000, valued at about £240,000.

Brigalow scrub, the biggest land pest in Queensland, Australia, is being successfully attacked with 2,4,5-T plant killer mixed with diesel.

Brigalow is a species of Acacia which attains a height of 20 to 25 feet and tends to grow in dense clumps, crowding out other vegetation. It is estimated that more than ten million acres of good land is lying idle because of this pest. Agricultural officials hope to make 500,000 acres of this land available within the next few months as a result of aerial spraying efforts late last year.

The largest sheep station in the world is in South Australia, and covers an area of about 3,000 square miles, or one-sixteenth the size of England. Wilgena's 45,000 sheep graze the desert saltbush and thrive on it, cutting about 14 pounds of wool apiece, which is well over the Australian average. Water is supplied them through 80 miles of pipe, and their range is protected from rabbit damage by 400 miles of five-foot-high, vermin-proof fencing. Shepherds at Wilgena have discarded horses in favor of motor scooters, and their specially-trained sheep dogs ride on the floor of the machines, jumping on and off as required.

Australian possums, introduced into New Zealand in 1885, have become the number one pest, plaguing hill farmers around Palmerston in the North Island. The possums descend in droves on plantings of swedes, rape, and purple-top turnips, eating off the tops and killing the plants. When those crops have been cleaned up, they start on the grass. Unlike Australian rabbits, possums can scale any wire fence made. They are easily trapped, but so numerous that trapping would be a major operation.

Herd testing in Victoria reached an all-time high with 133,000 tested cows in 3,270 herds, averaging over 40 cows; 580 of these herds averaged over 380 pounds butterfat.

All Australian records for auction sale of stud beef cattle were broken at Sydney last April, when a Hereford bull, South Boorook Brimfield, sold for 6,700 guineas. The previous record price was 5,400 guineas, paid for a Shorthorn bull at the same show last year.

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The Country Boy and Girl



*The goldenrod is yellow,
The corn is turning brown,
The trees in the apple orchard
With fruit are bending down.*

ACROSS our Canadian prairies Mother Nature has swept her huge paint brush and with bright, bold colors has given our land a great breath-taking beauty. The poplar and willow leaves she paints a bright, clear, shiny yellow, to the gnarled oaks she gives brown leaves and bright scarlet to the pincherry bushes. The dull tawny grass serves as a background for red rosebushes laden with rose hips, purple gentians and goldenrod.

Fall has truly come when the goldenrod turns yellow. The great naturalist, Ernest Thompson Seton, who lived his boyhood days on the Canadian prairies at Carberry, Manitoba, called the goldenrod the compass-flower because when he examined it he was able to locate north — the bent tip of the goldenrod points to the north.

A recent book about this great naturalist, called "Ernest Thompson Seton's America," has

just been published by Devin-Adair, New York 9. It contains a fine selection of his writings, many of which are now out of print and some of which have never before been published.

Ann Sankey

Paddy and Pudding

by Mary Grannan

PADDY was a little boy. Pudding was a little bear. Pudding lived at the city zoo. It was there that he met Paddy. Paddy liked going to the zoo, and went almost every day, throughout the summer. He became friendly with the monkeys, peacocks, zebras and the elephant. His favorite of all the animals was Pudding.

He would sit on the grassy mound outside the little bear's den, and talk to him through the iron grating. He told Pudding all that went on in the world outside.

One day in mid-August, Paddy came to the zoo very early in the morning. "I'm glad you're up, Pudding," he said. "This is my birthday, Pudding. I'm six years old today. Because it's a special day, I'm going to have a party. I wish you could come, but no bears are allowed. Just little boys and girls! But I'll bring you a piece of my birthday cake tomorrow."

Pudding was very pleased to learn that he was to get a piece of the special cake. He was glad when the morning came. Paddy was as good as his word and arrived soon after the lunch hour, with the birthday cake. The pink icing and the little chocolate rosebuds were so pretty that Pudding didn't want to eat them.

Pudding licked his lips in appreciation, and sat down on his side of the iron fence to hear about the party.

"It was a lovely party, Pudding," Paddy said. "There were ten girls and nine other boys besides myself, at it. And each one of them brought me a present. Mum and Dad gave me a racing car big enough to sit in, and my Aunt Jean gave me a bookbag. Don't tell this, Pudding, but I liked the bookbag best of all my presents. Now that I'm six, I'm going to go to school."

Pudding didn't know what "school" was, but he didn't bother to ask Paddy to explain.

The warm, lazy days of August passed quickly, and September was upon them. Paddy went happily to school. Pudding waited all day for his little friend, but he did not come. When three days passed with no sign of Paddy, Pudding was worried.

The elephant across the way called out, "Aren't you feeling well, Pudding?"

Pudding nodded his head, sadly. "Yes, I'm feeling all right. I'm just worried about Paddy. It's not like him to stay away. Perhaps I've hurt his feelings."

"Of course you haven't hurt his feelings," said the elephant. "You're a good little bear. Paddy may have gone away with his mother and father. Did he mention going any place?"

"Yes, he did," the chubby little fellow said, "he said he was going to school. I wonder how long he'll be at school."

Mrs. Elephant shook her head. She didn't want to break the sad news to Pudding, but she knew that she must. "He'll be at school for years, and years," she said. "All children go to school to learn things. Each day they learn something new."

Pudding sat down on his haunches, and stared up at his big friend in dismay. He thought over what Mrs. Elephant had said, and then he made up his mind. He was going to go to school, too.

"But Pudding," said Mrs. Elephant when the little bear told her of his decision, "you can't go to school. School is for little girls and boys, and you're a bear. And secondly, you can't get out of your cage."

"I could get out easily," he said, "if you'd loosen a few bars, with your trunk. Your trunk is long and strong. Tonight, you could reach across and bend a few bars and I could climb out. Please, Mrs. Elephant? I want to go to school with Paddy."

Mrs. Elephant knew that she should not agree to the scheme, but she

finally gave in. That night when the zoo was quiet with sleep, she managed, with difficulty, to bend the great iron bars of the cage, enough to allow little Pudding to escape. She told him where the schoolhouse was.

Pudding scampered away into the night, and when he reached the school grounds, he hid himself in a thick cedar hedge, to wait for morning and Paddy.

At half past eight, laughing children came running and hopping from all directions, toward the schoolhouse. Pudding sighed in relief. School must be a happy place. A few minutes later, bookbag swinging, came Paddy. Pudding waddled from his hiding toward his little friend. The laughing children began to scream, and ran toward the schoolhouse. Paddy stood in wide-eyed amazement. "Pudding," he gasped. "What are you doing here? How did you get out of the zoo?"

Pudding pointed with a chubby paw, toward the schoolhouse. Paddy understood and laughed. "You want to go to school, too?"

Pudding nodded his shaggy brown head, and slipped his paw into Paddy's hand. "Come on, I'll take you in, but you won't want to stay," said Paddy.

When the teacher saw Paddy coming with the bear, she forgot her

dignity, and climbed to the top of her desk.

"Pudding won't hurt you, Miss Black," said Paddy. "I don't know how he did it, but he's escaped from the zoo. He wants to go to school."

The teacher stepped from the desk to the chair and then to the floor. "Paddy," she said, breathlessly, "sit down with the bear, while I call the zoo keeper."

Paddy took Pudding to his seat. They crowded into it together. The children had gotten over their first fright, and were delighted with their strange visitor. Paddy explained to Pudding, as best he could, that school was no place for little bears.

"I'll come and see you on Saturday, Pudding," he promised, "and I'll tell you all the things I've learned."

Pudding was glad enough to go back to the zoo, when the keeper arrived. He was hungry, and he didn't relish the idea of sitting quietly all day.

"I'm sorry we've put you to so much trouble, Ma'am," said the zoo keeper, to Miss Black. "I don't understand how the mischievous little fellow got out. The bars on the roof of his cage were forced apart. He couldn't have done it himself."

Pudding looked at Paddy. Paddy winked, and Pudding knew that his secret was safe.

Sketch Pad Out-of-Doors

No. 31 in series—by CLARENCE TILLENIUS



WHEAT STOOKS
MUCH SHORTER IN
FIELD. SUN IN
UPPER LEFT SKY.
STOOKS SEEN FROM
SHADOW SIDE NO
LONG SHADOWS - ABOUT NOON

THE flat prairie does not usually make a good subject for a line drawing. For one thing, it is difficult to achieve the effect of distance—to make the landscape appear to recede. Much better to pick some scene where there are objects here and there from foreground to middle distance, some near, some far. If you judge correctly their apparent size in relation to each other, (perspective again) you should not have much trouble getting the effect of distance.

One of the baffling things about starting an outdoors drawing is just—where to begin? All nature is in front of you. How much of it is to appear in your drawing?

In the accompanying sketch (made with a fountain pen) the first thing drawn was the foreground stook, with

a stroke or two to indicate where the horizon came and the small clump of poplars against the sky. Once the general outline of that main stook was in, it was simply a matter of comparing position and relative sizes of other stooks near it.

Perhaps I should warn you that a sketch like this one is not enough to do a painting from. It is all right as a reminder of a possible picture: but there is not enough detail. If you were to paint a picture of this scene, you would need to make a number of additional sketches and studies to be sure you had more detail than you needed. By the time you had done this, you would know enough about the scene to be able to leave out what was unnecessary — and that is the secret of good pictures. Just that! Leave out what is unnecessary.

THE *Country* GUIDE

with which is incorporated

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VOL. LXXIII WINNIPEG, SEPTEMBER, 1954 No. 9

The Averted Rail Strike

ON August 18, a threatened railway strike by eleven non-operating unions, involving about 145,000 employees of four Canadian railroads, including both transcontinental systems, was averted by the intervention of the Federal Government. Trouble had been brewing since last November, when the unions notified the railways that when their agreement expired in December, they would ask, not for wage increases, but for "fringe benefits" involving vacation with pay, statutory holidays, sick benefits and special rates of pay for Sunday work. The railways immediately rejected these demands, on the ground that they would necessitate a further increase in freight rates, owing to the fact that they would cost more than the total net income of the railways last year.

Successive negotiations, including efforts to reach agreement by conciliation, failed entirely. A strike vote reported August 11, provided a clear mandate for a strike.

The prime minister, after announcing that he would, if necessary, call a special session of parliament to prevent a tie-up of the roads, invited both sides to resume negotiations; and after two days of unsuccessful talks, he told unions, in effect, that they could have compulsory arbitration in either of two ways,—voluntarily, or by act of a special session of parliament. The unions chose the voluntary method and the following week the annual convention of the Trades and Labor Congress of Canada, passed a strong resolution condemning the action of the government in depriving them of the right to strike.

What should be the attitude of those Canadian citizens who are not involved in labor disputes, toward situations of this kind? Just how complete is the right to strike, which has been given along with, or as a part of the right to bargain collectively? Is this right unlimited? Does it hold good in wartime? In times of business recession? Does it apply to all unions at all times, regardless of the kind of business involved, or the ability of the enterprise to pay what the unions may ask? Or must this right be limited—as all other rights in society must be limited—by the injury which the exercise of it would do to others, including the consumer, the farmer and business generally?

The organized farmers of Canada have very properly taken the latter stand, through the Canadian Federation of Agriculture. They recognize, fully, the right of labor to strike, but they do not recognize an unlimited right; and they would be very foolish, indeed, if they did. No one really likes to see a government step in and arbitrarily force a settlement between two large groups of individuals. Nevertheless, the recent strike threat provides an excellent illustration of the fact that after everything that is legal has been tried, and has failed, there can be no other power or authority adequate to the task, except that which is vested in parliament, or its executive, the cabinet. After all, it is really they who have been elected to represent fifteen million Canadians. V

Rust

AS this is written, the shine is rapidly wearing off the earlier wheat crop estimates of more than 480 million bushels. Dr. J. B. Harrington, of the University of Saskatchewan has estimated, "conservatively," the crop loss due to rust alone in Saskatchewan, at 100 million dollars. Dr. F. J. Greaney, Director of Line Elevators Farm Service, and Dr. T. Johnson, head of the Federal Laboratory of Plant Pathology, Winnipeg, are in general agreement that a crop of around 400 million bushels is

more likely. Privately, qualified individuals have estimated the wheat crop at 375 million bushels, or less.

There seems to be little doubt that despite abnormally late seeding and the reduction in seeded acreage, favorable weather and absence of disease would have brought out a 500-million-bushel crop. This, however, was not to be, for in keeping with the topsy-turvy character of the season, it was not the dreaded Race 15B of wheat stem rust blown in from Kansas that was to do the greatest amount of damage, but a visitation of leaf rust which appears to be of unprecedented magnitude on this continent. Varieties may be resistant to either type of rust, or both, or neither. It happens that none of our recommended varieties is resistant. Selkirk, the new variety which is now being increased, is resistant to Race 15B of stem rust and carries considerable resistance to leaf rust, but is not believed to be widely adaptable over the Prairie Provinces.

In view of the importance of the wheat crop to the Prairie Provinces and to Canada as a whole, and the fact that another visitation similar to the one this year could occur next year or any year, it doesn't take much imagination to believe that the plant breeders are an unhappy lot at the present time. They can scarcely avoid some feeling of responsibility for having inadequately protected a crop which means so much to every Canadian. Individually they should not be held accountable, because their numbers are too small for the almost impossible task of producing varieties of wheat, to say nothing of other grains, that will resist sudden onslaughts by the scores of potential crop enemies which Nature has provided. If responsibility is to be assessed, it must be shared by all, not least by farmers and their organizations for having taken too much for granted, and for their failure to press for more vigorous and comprehensive plant breeding programs. V

Auction Selling

AUCTION selling of market livestock began last month at the St. Boniface stockyards. This is not the first time that auction selling has been attempted on the principal western market; and an earlier, unsuccessful experience may be responsible in Winnipeg for the delay in giving this method of selling another trial.

Auction selling has now been in operation on all western public markets for some time. In Alberta, about 25 local community auction sales have been organized, primarily for the disposal of stockers and feeders. A little less than a year ago, an auction market was established for the livestock of southwestern Manitoba at Brandon, by the Livestock Department of the Manitoba Pool Elevators. Generally speaking, auction selling of market livestock seems to have taken well, wherever it has been introduced in western Canada. This method is also widely used in the United States, but most of the community auctions there appear to be privately operated. There are also a small number in Ontario, both privately owned and co-operative.

Auction markets, especially those within trucking distance of the farm, have two advantages which, quite understandably, have an appeal to farmers now that trucks are available on so many farms. Certainly, in all communities, the moving of livestock to markets up to 100 miles away presents no problem. Directly related to the practicability of auction selling is the fact that the owner of the livestock can, if he chooses to do so, be present when his animals are sold, and watch the proceedings. He can form his own judgment as to the adequacy of the price he receives, as compared with prices buyers have been willing to pay for other animals passing through the ring. He can, if he has sufficient confidence in his judgment, put a reserve price on his offering; and, if the auction does not bring him the equivalent of it, he can dispose of them elsewhere, or by other means.

The auction method does run counter to the method of producer marketing boards for livestock, which is now under discussion. This does not mean, however, that a fair amount of experience obtained through auction selling, or in some other way, may not be a prerequisite to the ultimate success of a

marketing board, especially for cattle. Hogs are government graded on the rail and paid for on a dressed and graded basis. It is conceivable, therefore, that a hog marketing board might be successfully established sooner. Beef animals are sold almost entirely on the hoof. Beef grades are not as well established, or as generally used. Market grades of live animals are type, rather than quality, classifications. For these and other reasons, we believed that auction selling of cattle has a definite place in a good system of marketing. It may have a permanent place, as a method of bringing buyer and seller together in an atmosphere of fair and competitive trading, or serve less permanently as a method by which producers may see the market in operation as frequently as they choose to visit it; and approach the possible formation of producer marketing boards much better equipped to contribute to their success, than the majority of farmers are today. V

Drought

SUBSTANTIAL areas of the United States have already experienced drought during three successive years. A portion of the drought area, part of it on the south Atlantic Coast, but most of it in Texas and vicinity, has been experiencing drought for a four-year period, beginning in 1951. Last year, President Eisenhower authorized emergency relief in specified drought disaster areas, and this year, by the end of July, similar emergency relief went into effect in over 250 counties from Texas to Wyoming.

Maps of the drought area, based on U.S. Weather Bureau data, indicate that the area has been steadily enlarging northward. Unfortunately, the science of weather prediction has not yet progressed far enough for experts to agree that there is such a thing as a drought cycle. Weather Bureau officials say that once a type of weather has set in, it will persist over a season, but refuse to agree that there is a weather cycle extending over a period of years. On the other hand, Dr. Charles G. Abbott, former head of the Smithsonian Institution, who in the thirties predicted a drought in the fifties, says that for more than 100 years in the U.S., periods during which radiation from the sun is intense have followed a cycle. He argues that weather in the United States will gradually become more normal after 1954, but the dry period will not be completely over until about 1960.

So far, we are still in the dark as to whether dry weather just fades away, or whether it moves to some other area of the world's surface. One is perhaps justified in asking, since the U.S. drought has been moving northward, whether western Canada is to be next in line to experience the consequences of this monstrous eccentricity of the elements. The weatherman certainly has not kept things very well in hand this year in western Canada, and with this dereliction from duty in mind, it might be well for farmers in western Canada to be prepared for almost anything next year.

Most of the cultivated area of the Prairie Provinces is semi-arid. This means that the normal margin between good crops and poor is narrow. During the last decade or more, the weather during our growing seasons has been remarkably favorable on the average. If history possesses the merit usually accorded it, a change to less favorable seasons is due, and the present season may be a foretaste of further changes to come.

If the weather pattern is to be one of change and unpredictability, farmers who have been coasting along for some years on the probability of fair weather, would do better to tighten up on farm practices. Deserving of special effort are careful summerfallowing and more vigorous approach to weed control, more attention to seed quality and early seeding and, in most parts of the Prairie Provinces, a little more land put down to grasses and legumes suitable to the district. It might be well to remember, too, that few if any farmers have ever lost money by snuggling up closer to experimental stations, universities, or departments of agriculture. These institutions, also, could well furnish up whatever weapons they have in their scientific, extension and administrative arsenals, with which to combat the unpredictable. V